APPENDIX 1 – STUDY MANDATE & SCOPE AND OBJECTIVES

LEGISLATIVE MANDATE

Section 103 of the 1999-2001 Omnibus Appropriations Act (Chapter 309, Laws of 1999) included the following proviso in the appropriation for the Joint Legislative Audit and Review Committee:

The appropriations in this section are subject to the following conditions and limitations: \$280,000 of the general fund--state appropriation is provided for conducting a study of the mental health system. The study shall include, but not be limited to:

- (1) An analysis of the roles and responsibilities of the division of mental health in the department of social and health services, with regard to regional support networks (RSNs) and community mental health providers;
- (2) An analysis of the funding of the RSNs through contracts let by the division of mental health, including the basis for per capita payment rates paid to the regional support networks and any federal requirements related to the federal Medicaid waiver under which the current mental health system operates;
- (3) An analysis of actual and contractual service levels, outcomes, and costs for RSNs, including the types and hours of services provided, costs of services provided, trends in per client service expenditures, and client outcomes;
- (4) An analysis of RSN and subcontractor service and administrative costs, fund balances, contracting practices, client demographics, and outcomes over time;
- (5) An analysis of contracts between RSNs and community mental health providers, with emphasis on costs, services, performance, and client outcomes, including any accountability standards, performance measures, data requirements, and sanctions and incentives currently in the contract between the regional support networks and the mental health division; and
- (6) Recommendations for modifying the basis on which RSNs and community mental health providers are funded, including a funding formula that will result in a greater relationship of the funding distribution formula to the prevalence of mental illness in each RSN service area, to efficiency as demonstrated by performance measures and to effectiveness as demonstrated by patient outcome.

The joint legislative audit and review committee may contract for consulting services in conducting the study.

The study shall be submitted to the fiscal committees of the Legislature by December 1, 2000.

SCOPE AND OBJECTIVES Background

Chapter 205, Laws of 1989 required the creation of local Regional Support Networks (RSNs) to decentralize the administration of publicly funded mental health services. RSNs are operated by counties, or groups of counties. There are 14 RSNs in Washington. The Mental Health Division of the Department of Social and Health Services provides overall policy guidance and allocates approximately \$650 million of state and federal funds per biennium to the RSNs. This study was mandated by the 1999 Legislature due to concerns about how funding is allocated among the RSNs, and an interest in examining the performance of the public mental health system.

SCOPE

The study will assess several aspects of the publicly funded mental health system as directed in ESSB 5180 (1999-2001 Biennial Budget).

OBJECTIVES

- 1. Assess whether the Mental Health Division of the Department of Social and Health Services provides administrative services and policy leadership that promotes efficient and effective mental health services consistent with legislative intent.
- 2. Assess whether the current funding methodology allocates funds among RSNs in an equitable manner.
- 3. Compare the amount and types of services provided, costs of service, and client outcomes among the RSNs.
- 4. Compare RSN and subcontractor service and administrative costs, as well as fiscal and contracting practices, and assess whether differences in these factors among RSNs are related to client demographics and client outcomes.
- 5. Compare contracts among RSNs (and/or administrative subcontractors to RSNs) and community providers to determine how these contracts vary in terms of costs, payment methodologies, performance and outcome incentives or standards, and how these factors may be influenced by the contracts between the Mental Health Division and the RSNs.
- 6. Identify whether there are sufficient and reliable data available on the prevalence of mental illness, service efficiency, and program effectiveness to use as a basis for a new method of allocating funds to RSNs, and develop recommendations for a new allocation system.

APPENDIX 2 – AGENCY RESPONSE

- Department of Social and Health Services
- Office of Financial Management
- Auditor's Comments

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November 20, 2000

Thomas M. Sykes, Legislative Auditor Joint Legislative Audit and Review Committee P.O. Box 40910 Olympia, Washington 98501

Dear Mr. Sykes:

I am pleased to enclose the Department of Social and Health Services' response to the Joint Legislative Audit and Review Committee report entitled **Mental Health Performance Audit**.

We appreciate the opportunity to respond to this report. If you need additional assistance, do not hesitate to contact me.

Sincerely

DENNIS BRADDOCK

Secretary

Enclosure

MENTAL HEALTH PERFORMANCE AUDIT

Thomas M. Sykes, Legislative Auditor Joint Legislative Audit and Review Committee (JLARC)

The Department of Social and Health Services (DSHS) position on each of the study's 14 recommendations follows:

	RECOMMENDATIONS	AGENCY POSITION	COMMENTS
1.	DSHS to coordinate allied services at all levels for mental health clients. DSHS should strategize to resolve organizational, regulatory, and funding issues at all levels of the system.	Concur	 Coordination efforts started with DASA in 1998, DDD in 1999, AASA in 2000, CA planned. A challenge to all DSHS service systems that serve persons with mental illness. Regional boundary variance is one challenge. Fiscal Impact MHD staff time will be needed to implement this recommendation. Request is included in MHD policy level budget request. This item is titled "RSN Monitoring and Support" and totals six FTEs and \$909,000 (\$450,000 state).
2.	MHD to require RSNs to collaborate with allied systems and identify RSN responsibilities to achieve collaboration. MHD to enforce these contract provisions.	Concur	In current contract – will be strengthened to identify RSN responsibilities in 01-03 contract.
3.	MHD, AASA, state hospitals and RSNs to ensure hospital discharge and community placement occur in a timely manner, including work on discharge and community placement criteria.	Concur	See comments in #1. MHD has started work on this recommendation. Fiscal Impact Adult family home and boarding home operators are not satisfied with the current rate structure and will continue to advocate for higher rates especially for persons with challenging behaviors.

AGENCY POSITION	COMMENTS
Partially concur	 MHD is in year 3 of a performance indicator grant working towards in-system agreement on indicators and data collection. 01-03 contract will include performance indicators. MHD oversight activities have been reorganized to reduce duplication. MHD will follow up with HCFA on this recommendation. Fiscal Impact The JLARC report anticipates an unknown savings amount. MHD does not anticipate any savings related to this recommendation.
Concur	
See below	Fiscal Impact • Requires additional staff requested in 01-03 budget. See the six FTEs referred to in comments on recommendation #1.
Partially concur	Requires phase-in process.
Concur	Requires work with the State Auditor's Office regarding the Budgeting, Accounting and Reporting System (BARS) definitions.
Concur	
Partially concur	MHD will follow up on this recommendation with the Auditor's Office.
	Concur Concur Concur Concur

RECOMMENDATIONS	AGENCY POSITION	COMMENTS
6-5. MHD to work with the Auditor's Office and counties to explore feasibility of Local Government Financial Reporting System to assist MHD with monitoring and streamlining the cost reporting process.	Partially concur	MHD will follow up on this recommendation with the Auditor's Office.
6-6. MHD to develop a process to quantify and report costs of RSN utilization of state hospitals and integrate this with other RSN cost information.	Concur	
7. MHD to change its fiscal accountability standard requiring 75 percent of revenues be spent for direct serves so as to provide uniform definitions that reflect the items below:	See below	Fiscal Impact Requires additional staff requested in 01-03 budget. See the six FTEs referred to in comments on recommendation #1.
7-1. MHD to narrow the definition of direct services to include only those expenditures directly related to client services.	Concur	 Implemented in 7/1/00 contract amendment. Further clarification in 01-03 contract.
7-2. MHD to create a new expenditure category to include direct service support expenditures.	Concur	 Implemented in 7/1/00 contract amendment. Further clarification in 01-03 contract.
7-3. MHD to include in its fiscal accountability standard the reporting of administrative and support costs of MHD, state hospitals and community hospitals not currently part of the calculation or not counted as direct services.	Partially concur	MHD agrees that these costs should be part of a fiscal accountability standard. However, the descriptions used by JLARC in exhibit 11, (Percent Direct Service Expenditures), include the services needed to maintain accreditation, certification and sound clinical practice. Also, the community hospital descriptions do not take into account the differences between medical and psychiatric practice.

RECOMMENDATIONS	AGENCY POSITION	COMMENTS
8. MHD to develop uniform client and client data definitions to address inconsistencies.	Concur	MHD anticipates that this recommendation will take a significant amount of time due to variations among RSN data systems and due to the need for extensive work with stakeholders. Fiscal Impact Requires additional staff requested in 01-03 budget. See the six FTEs referred to in comments on recommendation # 1.
9. MHD to incorporate a uniform performance measurement system in RSN contracts so as to manage the system with outcome information.	Concur	01-03 contract will include performance indicators as recommended by the JLARC consultants.
10. MHD to implement outcome based performance measurement system and report to the legislature annually over five years on how it is using the information to manage the system.	Partially concur	MHD is in year 3 of a performance indicator grant. Fiscal Impact The JLARC report assumes that this will cost up to \$950,000 to start and \$250,000 annually thereafter. These amounts are reasonable. JLARC also assumes that the ongoing costs can be paid for with savings generated from recommendation 4. MHD does not expect savings from recommendation 4 and even JLARC states that those savings amounts are "unknown".
11. MHD to continue capitated payment methodology with the following changes:a. Use the same methodology for allocation of federal and state outpatient funds.	Partially concur	Regarding a, b, and c: 01-03 budget planning combines funding streams and reduces funding disparity by using statewide average rates;
 b. Eliminate the distinction between outpatient and community inpatient funding. c. Reduce the disparity in payment rates per Medicaid-eligible person. 		

RECOMMENDATIONS	AGENCY POSITION	COMMENTS
d. Allocate funding for state hospital beds to the RSNs.		 Regarding d: Allocating funding for state hospital beds to the RSNs will require development, research and stakeholder work with labor and others. MHD would also need to work with HCFA on the use of DSH funds. Fiscal Impact MHD estimates \$100,000 to develop an initial plan that sets forth a detailed implementation strategy.
12. MHD to conduct periodic prevalence studies.	Partially concur	 Benefit of these studies may not justify cost. Fiscal Impact The JLARC report estimates \$500,000 for each study.
13. MHD to restrict all RSN fund balances and reserves at maximum of 10 percent of annual revenue.	Concur	To initiate in 01-03 contract.
14. MHD to periodically analyze performance information from RSNs and providers so as to identify and disseminate information on efficient and effective operations and best practices. MHD to create a pool of incentive funds and distribute them as incentives for efficient and effective services.	Concur	 Requires definition of best practices and development of standards. Requires designation of current funds to be held back from the RSNs as an incentive pool, or requires new money. Fiscal Impact Requires additional staff requested in 01-03 budget. See the six FTEs referred to in comments on recommendation #1.

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JLARC

CONTOUR OF FINANCIAL MANAGEMENT.

So grante Fielding PC Box 3 (113 + Olympia Washington 93704 3113 * (360) 902-0553

November 21, 2000

Tom Sykes Joint Legislative Audit and Review Committee 506 16th Avenue SE Olympia, WA 98501-2323

Jon Dear Mr. Sykes:

Thank you for the opportunity to review the Joint Legislative Audit and Review Committee's preliminary report entitled Mental Health System Performance Audit. Below we have provided our comments.

RECOMMENDATION	OFM POSITION	COMMENTS
Recommendation 1	Concur	COMMINIO
Recommendation 2	Concur	
Recommendation 3	Concur	
Recommendation 4	Concur	
Recommendation 5	Concur	
Recommendation 6	Concur	
Recommendation 7	Concur	
Recommendation 8	Concur	
Recommendation 9	Concur	
Recommendation 10	Concur	We suggest that macro level performance measures be developed from the outcome performance information and be added to the current performance measure now reported by the Mental Health Division in the PMTES system. In this way, JJLARC may access to this information electronically.
Recommendation 11	Partially Concur	We suggest the Mental Health Division further review the funding for state hospital beds to consider all options including direct payments to RSNs.
Recommendation 12	Partially Concur	While future prevalence studies have merit any study that includes mentally ill offenders in county jails will require considerable resources and might be better undertaken in conjunction with criminal justice organizations.
Recommendation 13	Concur	
Recommendation 14	Partially Concur	We feel a strong recognition program might serve as an adequate substitute for a pool of incentive funds.

In addition, we note the fiscal impacts regarding several JLARC recommendations enumerated in the Department of Social and Health Services' response to the study. We believe the fiscal impact estimates are realistic and must be considered in light of equally compelling challenges facing the department.

If you have any questions, please contact Tom Lineham at 705-0456.

Sincerely,

Marty Brown/

Director

cc: Cathy Wiggins, Executive Policy

JLAKC REPORT - MENTAL HEALTH SYSTEM PERFORMANCE AUDIT

AUDITOR'S COMMENTS ON DEPARTMENT'S RESPONSE

Recommendations 1, 6, 7, 8, 11 and 14: These recommendations pertain to improving the coordination of services for clients with multiple needs (Recommendation 1), improving the consistency of fiscal data collected from RSNs and providers (Recommendation 6), changing the fiscal accountability standard for RSNs (Recommendation 7), improving the consistency of client and service data collected from RSNs and providers (Recommendation 8), allocating state hospital funds to RSNs (Recommendation 11-d) and to use fiscal and outcome data to identify and reward best practices at RSNs and providers (Recommendation 14).

Department Position and Comments: The DSHS response indicates that six FTE's and \$909,000 are needed to implement recommendations 1, 6, 7, 8, and 14, and another \$100,000 is needed to implement recommendation 11-d.

Auditor's Comments: The Preliminary Report estimated no fiscal impact for any of these recommendations because we believe that the Mental Health Division should already be doing many of these things as a matter of course (and in some cases is already mandated to do so by statute), and should be able to implement these recommendations within existing resources.

Recommendations 4 and 10: Recommendation 4 said that the MHD should continue to streamline and eliminate process-oriented accountability activities. Recommendation 10 is that the MHD should implement an outcome based performance measurement system in accordance with the performance measurement framework provided in the Preliminary Report. The Preliminary Report identified a fiscal impact of \$730,000 to \$950,000 in start-up costs, and \$250,000 in annual ongoing costs to implement Recommendation 10, to be offset by cost savings as a result of implementing Recommendation 4.

Department Position and Comments: The DSHS response indicates that they do not expect cost savings as a result of implementing Recommendation 4 that could be used to offset the cost of implementing Recommendation 10.

Auditor's Comments: The intent of these two recommendations is to *replace* the current system accountability activities that assess *processes* of care with a system of measuring the *outcomes* of care (e.g., did care plans include certain required elements versus did the client improve?).

The fact that DSHS anticipates no cost reductions in association with the implementation of Recommendation 4 suggests that DSHS does not anticipate making any real reductions in process-based oversight activities as it implements outcome measurement.

We think outcome measurement should replace, rather than add to, the current process-based oversight activities because the current oversight activities involve a substantial amount of resources at the MHD and RSNs, are burdensome to community mental health providers, yet do little to ensure that the services provided are efficient or effective. Therefore, while these activities are nominally conducted in order to promote system accountability, they actually do little to ensure actual accountability of providers and RSNs. We think that the accountability of the system could be enhanced, without additional ongoing costs to DSHS, or additional burden to providers, by *replacing* process-oriented activities with a system of measuring outcomes.

JLARC REPORT - MENTAL HEALTH SYSTEM PERFORMANCE AUDIT

APPENDIX 3 – EXECUTIVE SUMMARY: COST ACCOUNTING REVIEW OF THE WASHINGTON STATE PUBLIC MENTAL HEALTH SYSTEM; CONDUCTED BY STERLING ASSOCIATES, LTD.

EXECUTIVE SUMMARY

Scope and Objectives

Sterling Associates, Ltd. was engaged by the Joint Legislative Audit and Review Committee to assist with analyzing financial and cost issues for services delivered through the Regional Support Networks (RSNs) and their subcontracted providers. The review by Sterling Associates was conducted with the objectives of:

- Assessing the adequacy of financial reporting processes for collecting consistent cost information from entities involved in the system,
- Providing recommendations to improve financial reporting processes,
- Collecting information on administrative and service costs in the system,
- Analyzing cost information, and
- Assisting JLARC staff with using the cost information to compare costs among RSNs.

Background on Financial Reporting Processes

The Mental Health Division (MHD) of the Department of Social and Health Services (DSHS) is responsible for the public mental health program, and MHD contracts with 14 county-based RSNs for the local delivery of care. MHD lists general financial management stipulations in its contracts with RSNs, including a requirement that at least 75% of public mental health funds should be spent on direct services.

MHD provides specific financial reporting details through a supplement to the State Auditor's Budget, Accounting and Reporting System (BARS). The BARS supplement currently itemizes 17 cost categories to be reported to MHD. The Revenue/Expenditure forms

submitted by RSNs

in accordance with the BARS supplement are used to measure compliance with the requirement to spend 75% of funds on direct services.

Findings on Financial Reporting Processes

Based on a detailed review of the reporting instructions and related materials, and interviews with MHD, RSN, and provider staff, Sterling Associates observed the following findings on the current financial reporting processes:

- The decentralized, community-based approach to public mental health care is the
 result of a purposeful policy choice to encourage local flexibility and innovation.
 However, this conscious policy decision to move away from standardization
 means that detailed cost information is less likely to be reported comparably by
 RSNs and providers.
- 2. MHD requires several detailed categories of costs to be reported, but only two major categories (direct versus indirect costs) are actually used by MHD for accountability purposes.
- 3. The RSNs and providers generally make little use of the cost information that is currently generated for MHD.
- 4. In the financial information reported to MHD, RSNs and providers focus most of their attention on ensuring reported costs are split into direct and indirect areas. However, much less attention is spent on classifying direct and indirect costs into the various subcategories.
- 5. MHD cost reporting instructions do not provide adequate direction for identifying how costs for "organizationally complex" items at the provider level (e.g., building rents, clerical and supervisory support for clinicians) are to be classified as administration or direct service.
- 6. Provider costs reported by RSNs may or may not reconcile with how much providers were reimbursed by RSNs. Information reported to MHD includes inhouse RSN costs and provider costs. Since provider level expenses may not reconcile with RSN reimbursements, total costs reported to MHD may differ from actual RSN costs in county financial records.
- 7. RSNs are less organizationally complex than most licensed providers. Consequently, there is less confusion regarding which costs are indirect versus direct at the RSN level than there are at the provider level.
- 8. Counties serving as RSN fiscal agents are not currently directed to use BARS accounts that separately identify RSN-related fund balances or revenues from other county programs. This increases the difficulty of verifying that public mental health funds are used solely for RSN purposes and activities and complicates audit work.
- 9. Costs reported by RSNs do not include expenditures for inpatient services at community hospitals and DSHS operated mental hospitals.

Recommendations on Financial Reporting Processes

The following recommendations are offered to improve the financial reporting process:

- 1. MHD should reduce the number of reported cost elements to those directly linked to the accountability process.
- 2. MHD should clarify the definition for the "provider administration" cost category, to improve the consistency of assigning organizationally complex items to either administrative or non-administrative categories.
- 3. MHD should issue instructions to RSNs to ensure that reported cost information is collected in a manner that reconciles with actual county-maintained RSN financial records.
- 4. MHD should collaborate with the State Auditor's Office to ensure that all RSNs are using appropriate accounting procedures to segregate RSN revenues, fund balances, and reserve accounts from other county funds.
- 5. MHD should work with the State Auditor's Office and counties to explore the feasibility of using the Local Government Financial Reporting System to assist MHD with monitoring and streamlining the cost reporting process.
- 6. MHD should develop a process for quantifying and reporting the costs of RSN utilization of state operated mental hospitals. This data should be integrated with other cost information collected from the RSNs.

Methodology for Collection of Cost Data

Based on findings that existing historical cost information had comparability weaknesses, Sterling Associates pursued a separate data collection process to obtain improved cost data.

For RSNs, a data request was issued to identify actual costs attributed to the financial ledgers of the RSNs and to differentiate the costs to pay licensed providers. Sterling Associates communicated closely with RSN staff to disaggregate the in-house costs for RSNs, and cost information prepared from supplementary data sources was shared with RSN staff for comment. Further, MHD provided information on costs for inpatient treatment of RSN clients at community hospitals.

Sterling Associates also worked with mental health providers to obtain additional information on their internal costs. A standardized data collection instrument was developed to ensure providers segregated cost information for non-RSN clients, distributed shared costs, and submitted information on sixteen functional cost areas. Site visits were conducted with each provider to discuss the data responses and review supporting documentation. When possible, Sterling Associates made further adjustments to provider data to help improve its comparability.

A sample of thirty-five licensed mental health providers submitted data, and thirty-one of these respondents provided information that Sterling Associates considered reasonably comparable for further analysis. Overall, these thirty-one sample providers represented 63% of the costs paid to licensed mental health providers in CY 1999.

Cost Analysis for RSNs and Providers

Based on analysis of the collected cost data, Sterling Associates reached the following conclusions:

- 1. Overall, the RSNs and providers submitted financial information that materially complied with the data requests, including segregating costs for non-RSN clients and distributing shared costs appropriately.
- 2. Approximately \$302 million in funds were spent for RSN managed services during CY 1999. This figure includes payments to reimburse community hospitals for RSN services but does not include RSN utilization of DSHS-operated mental hospitals.
- 3. Four providers submitted information with data prepared using estimates that were less precise than the other providers. Excluding these providers from the sample does not significantly reduce the size of the sample.
- 4. The cost information that was collected can be used to construct a wide range of scenarios for estimating administrative costs. This illustrates how provider administrative costs could be portrayed very differently depending upon how the definition of administration was interpreted.
- 5. There is considerable variation in administrative costs for providers. Using the recommended administrative scenario definition, individual provider administrative rates average 16% and range from 9% to 32%.
- 6. There appear to be economies of scale for providers, and larger providers in our sample tend to have lower administrative costs.
- 7. There is considerable variation in administrative costs for RSNs. Using the recommended administrative scenario, RSN in-house administration averages 7%, and depending upon the RSN ranges from 2% to 10%. This variation does not appear to be related to the size of the RSN, the number of counties associated with the RSN, or whether the RSN was charged by their member counties for county overhead, rent, or utilities.
- 8. Two of the three RSNs that have contracted with a managed care entity for providing administrative services are among the three RSNs with the highest administrative cost percentages.
- 9. There are no strongly apparent patterns from the cost data that was collected which would indicate how RSNs may be impacting the administrative costs for their providers.
- 10. Providers have increased the amount of funds for serving RSN clients by 14%, by locating additional resources and/or integrating RSN programs with ones funded by other parties.

- 11. When combining RSN in-house administrative costs with provider administration, a reasonable scenario indicates these costs represent roughly 19% of total RSN costs. This administrative rate is somewhat understated, since it does not include estimates of administration for non-licensed direct service providers or community hospitals.
- 12. Without further analysis of cost information relative to service levels and performance measures, readers should be cautioned about judgments on appropriate levels of administration. This portion of the study did not analyze to what extent investments in administrative resources may have been related to the quality of care, amount of care, or outcomes achieved for RSN clients.

<u>Utilizing Cost Information to Calculate Operating Ratios</u>

The information collected for this technical appendix was focused on identifying certain categories of cost. It has not yet been compared to service units such as numbers of clients served or hours of client service provided.

When using the information in this technical appendix to calculate operating ratios from service units, care should be taken to select the type of costs appropriate for the intended analysis.

JLARC REPORT - MENTAL HEALTH SYSTEM PERFORMANCE AUDIT					

APPENDIX 4 – EXECUTIVE SUMMARY: PERFORMANCE MEASURES FOR MANAGING WASHINGTON STATE'S PUBLIC MENTAL HEALTH SYSTEM

Executive Summary

Prepared for the

Joint Legislative Audit and Review Committee

by

The Center for Clinical Informatics

Clegg and Associates, Inc.

The University of Washington Health Policy Analysis Program

July 2000

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Introduction

The 1999 Washington State Legislature directed the Joint Legislative Audit and Review Committee (JLARC) to conduct a performance audit of the state's public mental health system. The audit covers many aspects of the mental health system's functioning,

including the status of its performance measurement functions. JLARC contracted with Clegg and Associates, Inc. (with the Health Policy Analysis Program at the University of Washington as a subcontractor) and the Center for Clinical Informatics to conduct the performance measurement portion of the audit.

The scope of work for the performance measurement component includes the following activities:

- □ A review of the literature regarding current performance measurement practices in mental health services in the public and private sectors;
- □ An analysis of the systems implemented by states who are viewed as leaders in public mental health performance measurement;
- □ An assessment of the system's current performance measurement activities;
- □ The development of criteria to guide design of a performance measurement system for Washington State's public mental health system; and
- □ The formulation of recommendations for a practical and useful performance measurement system for the public mental health system.

The Purpose of Performance Measures

Creation of an effective performance measurement system involves balancing the need for the information collected with the cost of collecting it. At a systems level, the measures must focus on results and avoid concentrating on the processes by which the system attained these results. The performance measures put in place for Washington State's public mental health system must be sufficient to provide the Department of Social and Health Services' Mental Health Division (MHD) and the State Legislature with the information each requires to fulfill its roles and responsibilities as system leaders.

Specifically, the information must enable the MHD and the Legislature to perform the following functions:

- 1. Track progress in implementing a system that reflects the intent of State mental health statutes.
- 2. Assess progress toward achieving the MHD's mission and goals.
- 3. Assess compliance with HCFA requirements.
- 4. Inform the Legislature's and the MHD's mission-critical decision-making.
- 5. Enable appropriate and timely reporting on the system's performance to the Legislature and the mental health system's key constituencies.
- 6. Allow comparison of measurement results to established standards and benchmarks, among Regional Support Networks (RSNs), and against other states.

Best Practices in Mental Health Performance Measurement

A review of the literature regarding performance measurement reveals some basic components that are key to success. These *best practices* are based on lessons learned by those who have conducted performance measurement in many different work settings – including both the public and private sector. They are key to implementing an effective, user-friendly, and trusted performance measurement system:

- □ Incorporate a mission, goals, and objectives. These give an organization something against which to measure its performance. An organization can adopt industry standards or benchmarks as its objectives. Objectives, standards, and benchmarks establish the level of performance that defines success for the organization.
- □ Involve internal and external stakeholders. For mental health services, this includes administrative staff, clinicians, consumer advocates, consumers, and families, among others.
- Promote leadership support. Leadership is critical to successfully conducting performance measurement, including leadership of those within the organization taking on performance measurement and those with organizational oversight, such as regulators.
- □ Employ a simple, manageable and consistent approach. Create a system that is simple to use now and that can evolve as experience is gained and resources become available.
- □ Provide ongoing technical assistance. Those whose performance is being evaluated and those implementing the performance measurement system need technical assistance to understand and carry out performance measurement activities.

Best practices also suggest that two types of measures are most appropriate for mental health services performance measurement:

- Process measures, which assess what an organization does as part of the delivery of services; and
- Outcome measures, which assess a change, or lack of change, in a person's physical or mental status, or in the ability of a person to function in society. Clinical outcomes reflect psychological and physical changes related to the symptoms of an individual's clinical disorder; functional outcomes reflect how a person is succeeding in his or her community or with his or her life.

Process measures and clinical and functional outcome measures are best used in combination for mental health services performance measurement, to give a more complete picture of the performance of an organization.

And finally, the literature points out that performance measures for mental health services should be valid, reliable, and responsive. This means they should measure what they say they are measuring; be very likely to produce the same results every time they are used, and be able to detect change – either toward a goal or away from it.

Principles to Guide Selection of Performance Measures

The information regarding best practices can be translated into a set of principles to guide development of Washington State's public mental health performance measurement system. These principles offer a straightforward means of incorporating the experiences of other public and private systems into the approach used in this state. The principles are as follows:

1. Measure to manage;

- 2. Management requires frequent feedback over time;
- 3. Keep it simple and consistent, make it matter;
- 4. Keep it brief, measure often;
- 5. Create benchmarks, compare results;
- 6. Minimize opportunity for feedback-induced bias;
- 7. Provide the right information at the right time to the right person to make a difference;
- 8. Build in the flexibility so that the system evolves with the experience of the users;
- 9. Maintain central control of data and reporting; and
- 10. Establish and protect a core data set.

Building on Existing Knowledge

National Collaborations in Mental Health Performance Measurement

RESEARCH, DEVELOPMENT, AND TESTING OF PERFORMANCE MEASURES FOR PUBLIC MENTAL HEALTH SERVICES ARE PLENTIFUL AND ONGOING. MANY DIFFERENT ORGANIZATIONS ARE INVOLVED, INCLUDING THE FEDERAL GOVERNMENT, STATE MENTAL HEALTH AGENCIES, PROFESSIONAL MENTAL HEALTH ASSOCIATIONS, NOT-FOR-PROFIT ACCREDITATION FIRMS, AND FOR-PROFIT HEALTH PLANS.

FIVE LARGE-SCALE, COLLABORATIVE EFFORTS HAVE CONTRIBUTED TO THE CURRENT DIRECTION IN MENTAL HEALTH PERFORMANCE MEASURE RESEARCH, DEVELOPMENT, AND TESTING: THE MENTAL HEALTH STATISTICS IMPROVEMENT PROGRAM (MHSIP); NATIONAL ASSOCIATION OF STATE MENTAL HEALTH PROGRAM DIRECTORS (NASMHPD), PRESIDENT'S TASK FORCE ON PERFORMANCE INDICATORS; U.S. CENTER FOR MENTAL HEALTH SERVICES (CMHS), FIVE-STATE FEASIBILITY STUDY AND 16-STATE PILOT STUDY; NATIONAL RESEARCH COUNCIL PANEL ON

PERFORMANCE MEASURES AND DATA FOR PUBLIC HEALTH PERFORMANCE PARTNERSHIP GRANTS; AND THE JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS (JCAHO).

Performance Measurement in Other States and Private Mental Health Systems

Eleven states and four managed care companies were surveyed for examples of best practices in performance measurement and management.

Areas of Consensus

The survey revealed broad areas of consensus with regard to financial indicators such as utilization and cost per unit of services. Likewise, there is widespread use of certain process indicators such as time between hospital discharge and outpatient contact, hospital readmission rates, and wait time to first appointment.

Client Outcomes and Consumer Satisfaction Show Less Agreement

With regard to indicators of consumer satisfaction and outcomes of care, there are two parallel and potentially complementary lines of research and development. The first is the concerted initiative by a number of states to develop and test indicators based on the NASMHPD framework and the MHSIP Consumer Survey. The survey is administered after the consumer has been in treatment for some period of time and assesses consumer perception of ease of access, appropriateness, and outcomes of care.

The MHSIP initiative is supported by CMHS. The survey is relatively simple to implement. Since it inquires retrospectively, it requires only a single administration to obtain a snapshot of consumer satisfaction. The widespread use of the survey has resulted in a large national sample and CMHS is currently supporting the work of investigators to create performance benchmarks based on this sample.

The second line of research focuses on clinical outcomes and involves the use of standardized clinician rating scales and consumer self-report questionnaires administered at specified intervals over the course of treatment. The rating scales and questionnaires measure severity of problems in a number of areas including symptoms, interpersonal relationships, and role functioning at work or school.

While some states have recently implemented this approach, most of the effort has been supported by commercial managed care companies. This is true, in part, because these companies are actively involved in managing care on a case by case basis. In addition, a managed care company has considerable leverage over its providers to require compliance with the data collection protocols.

Over the last five years several companies have invested in development of clinical information systems designed to collect these data and actively manage patient outcomes by monitoring the rate of improvement for each case. The massive quantity of data generated by this approach has resulted in large databases that serve as benchmarks for outcomes. At least one managed care company is presently evaluating the performance of its senior management by benchmarking its outcomes against a large national sample of cases treated by other managed care companies. The performance target is to achieve greater improvement per case than the national norm. Use of patient self-report measures also has shown promise in improving both the allocation and the outcome of care. Recent research suggests that when therapists are provided information on the rate of patient improvement using a consumer self-report measure, the clinicians are more likely to focus their time on the cases that are most symptomatic and at risk for a poor outcome. The cost of the increased services to these at risk cases is more than offset by a complementary tendency to reduce the intensity of services to patients reporting low levels of distress.

No site in the survey has fully integrated these two broad approaches to evaluating satisfaction and outcomes, though there are promising starts. The next logical step is to create performance management systems that provide continuous performance feedback on clinical outcomes and consumer perception of care. Such a system could provide the decision support tools to enable clinicians and administrators to systematically and measurably improve consumer satisfaction and outcomes while benchmarking performance against national norms.

Federal and State Mandates

Performance measurement in Washington State takes place in the context of state and federal directives regarding the intent of the state's public mental health system. Washington State (through the RCW and the WAC and the federal government (through the Health Care Financing Administration's Medicaid and waiver application), specify whom the public mental health system is mandated to serve, the types of services to be provided, and the desired client outcomes.

In terms of implementing a performance measurement system, the mental health system's Medicaid waiver states that the Mental Health Division will use a grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) to implement a set of performance measures to track the system's results. The MHD is currently working with stakeholder groups to identify the performance measures it will require as part of the 2001 – 2003 biennial State contract. The Division is using the measures included in the NASMHP President's Task Force recommendations as the starting point for its work.

Current Status of the State's Performance Measurement Activities Setting System Direction

An assessment of the state's progress in setting direction for an effective performance measurement system for public mental health reveals the following:

- □ A number of efforts are underway to measure performance at the MHD, RSN, and provider levels. At each level, the individual organizations have established their own systems to provide the information they believe is necessary to meet internal needs (e.g., quality improvement), or external requirements (e.g., HCFA waiver or contract compliance). Efforts across the state are not coordinated, and as a result, there is inefficiency and a lack of comparability across the system.
- □ Confusion exists at all levels of the system regarding what performance measures are and which measures are required. For instance, RSNs and providers are required to collect and report data that they describe as performance measurement data. However, the MHD does not view all of this data as related to performance measurement and therefore does not use it in this manner.
- □ The MHD does not report a strong relationship between the collection of performance measurement data and use of the data to support decision-making. Most RSNs and providers report using performance measures both for decision-making and to meet reporting requirements.
- □ Current MHD performance measurement efforts focus on implementing a set of measures (the NASMHPD initial set of indicators) based, in part, on their ease of collection and comparability across states. However, many RSNs and providers place more emphasis on indicators that may be more difficult to measure (and therefore will be less comparable across states), but that they consider more useful for decision-making and evaluating performance.
- □ Utilization/penetration rates, and the time from initial contact to first service were reported as the most useful measures of access by RSNs and providers. Client satisfaction was an important measure of quality for both RSNs and providers. RSNs also reported hospital utilization as an important quality measure, while providers reported the time from hospital discharge to first face-to-face contact as a useful indicator of quality. Improved level of

- functioning and symptom relief, as measured by standardized instruments, were reported by providers to be important measures of client outcomes. Hospital utilization (as it affects cost) was reported by many RSNs and providers to be important.
- The Washington Community Mental Health Council, an organization made up of provider agencies, is implementing a performance measurement system (the "Accountability Project") using a standardized consumer survey. The Accountability Project offers participating agencies the opportunity to develop a valid, reliable, and comparable set of data describing how they perform. The data produced through this effort are intended to be comparable across providers and across states.

Status of Current Data Collection

The ability to collect data that describe the status of each performance measure is essential for an effective performance measurement system. An assessment of the status of current data collection by the MHD reveals the following:

- □ There is a great deal of variation in the data collection instruments used by system participants. The MHD, RSNs, and providers all use tools customized to their needs to measure performance; such customized tools do not yield comparable information and may not be valid, reliable, and/or responsive. Some RSNs and many providers also use standardized tools, which have been tested for validity, reliability, and responsiveness and offer the best opportunities for comparability.
- There is also great deal of variation in standards for performance. For some performance measures, there was no standard reported by either RSNs or providers. And in general, providers have more specific benchmarks/standards than RSNs, and RSNs have more specific standards than the MHD.
- □ While most RSNs and providers have voluntarily begun performance measurement efforts, a few measure only what they are required by their state contract to report. The cost of data collection and questions about the reliability of data are reported as the biggest obstacles to performance measurement activities. A lack of feedback on the results of performance measurement efforts also leads to questions about the usefulness of the data collection efforts.
- The MHD currently requires RSNs to report information through a central information system (the "Data Dictionary") that could be used to provide performance measures of access, as well as limited measures of quality and outcomes. Additional information required in the RSN contracts to be collected and reported could, if standardized, provide additional quality measures as well as limited structure/plan management performance measurement data. This data is partially adequate to meet some of the criteria for an effective performance measurement system but could be significantly improved through:
 - Clearer, uniform definitions;
 - consistent data entry across the system;
 - use of valid, standardized tools;
 - additional quality, outcome, and structure/plan management measures; and,
 - regular and useful analysis and reporting of the data.

Conclusions

As these findings indicate, the public mental health system does not yet have an effective performance measurement system in place. The current measurement approach does not produce information that is comparable within the mental health system. Comparisons among service providers are difficult to conduct, as are comparisons among the Regional Support Networks. Similarly, it is not currently possible to make reliable comparisons between Washington State's mental health system and those of other states.

Looking at the measurement system in comparison to the five key components noted in the literature review reveals that improvement is needed in all of the five key components:

- □ Clarity of the mental health system's mission, goals, and objectives;
- □ Leadership in defining and implementing an effective performance measurement system;
- □ Use of a simple, manageable approach;
- □ Involvement of stakeholders in performance measurement planning activities; and
- □ Provision of technical assistance.

Recommended Performance Measures

The table below summarizes the set of recommended performance measures for the public mental health system. These measures employ the taxonomy used by the National Association of Mental Health Programs Directors (NASMHPD), including domains and measures within each domain. For each measure, the recommended "decision-making use", i.e., for Legislative oversight or for system management, is shown. Information concerning performance for specific age and ethnic groups should be available for each measure.

Most of the measures are described here in their generic format. The intent is that this basic set of measures can be used to analyze performance related to specific sub-populations within the mental health system, e.g., children, the elderly, adults, ethnic groups. The importance of conducting this type of focused analysis is essential – the status of children in the system is of vital importance, as is the status of ethnic minorities, the elderly, and other groups.

D . ///	Appropriate Source of Data							
Domain/Measure	Current Data	Addition	Standardized	Study	Inter-	RSN and/or		
	Dictionary	to the	Instruments		System	Hospital		
	Item	Data			Data	Financial		
		Dictionary			Request	Reports		
	Domain: Access							
1. Penetration rates	√				✓			
OFM census update								

		Appropriate Source of Data						
	Domain/Measure	Current Data Dictionary Item	Addition to the Data Dictionary	Standardized Instruments	Study	Inter- System Data Request	RSN and/or Hospital Financial Reports	
2.	Utilization rates	✓						
3.	Consumer perception of access			✓				
4.	Average time from first contact to first service		√					
		Domain: (Quality/Ap	propriaten	ess			
1.	Consumer perception of quality/ appropriateness			✓				
2.	Percentage of consumers who actively participate in decision making regarding treatment			✓				
3.	Percentage of consumers linked to physical health services		✓		√			
4.	Percentage of consumers contacted by community providers within seven days of hospital discharge		✓			√ Hospita I data		
5.	Percentage of consumers who are psychiatrically rehospitalized within 30 days of discharge	✓				√ Hospit al data		

	Appropriate Source of Data						
Domain/Measu re	Current Data Diction ary Item	Additio n to the Data Diction ary	Standardi zed Instrumen ts	Stud y	Inter- Syste m Data Reque sts	RSN and/or Hospital Financial Reports	
6. Percentage of jailed/detained consumers receiving mental health services while in jail/detention		✓					
	Dor	nain: o	utcomes				
1. Consumer change as a result of services measured via: • Consumer self-report • Clinician assessment	S		√				
2. Consumer perception of hope for the future and personal empowerment			✓				
3. Percentage of adults employed for one or more days in the last				✓			
4. Percentage of available schoo days attended in		√		✓			

the past 30 days (for children)						
5. Percentage of consumers who have safe and stable housing			√			
6. Percentage of consumers without a jail/detention stay					Crimin al Justic e	
7. Percentage of consumers without a psychiatric hospitalization	✓					
Domain: Structure/Plan Management						
1. Average annual cost per consumer served						√

	Appropriate Source of Data						
Domain/Measure	Current Data Dictiona ry Item	Additio n to the Data Diction ary	Standard ized Instrume nts	Stud y	Inter- Syste m Data Reque sts	RSN and/or Hospital Financial Reports	
2. Average annual cost per unit of service						√	
3. Percentage of revenues						✓	

spent on direct services				
4. Percentage of professional positions throughout the mental health system held by people of color and ethnic groups the system serves		✓		
5. Percentage of consumers with dual diagnoses who have service plans coordinated with other systems	√		√	
6. Overall community partner satisfaction		✓		

Conclusions

Success in implementing performance measurement in large complex systems requires strong leadership, technical expertise, and focus. To be effective, performance measurement must be viewed as an essential tool for managing the system and evaluating its success in achieving its mission.

Implementation of the performance measures recommended in this report will require a major effort on the part of the MHD, the RSNs, and the provider agencies. In particular, leadership at the MHD level will be of paramount importance in achieving success.

APPENDIX 5 – METHODOLOGY AND DATA USED FOR JLARC'S RSN-LEVEL ANALYSES OF RESOURCE ALLOCATION AND EXPENDITURES

This appendix provides further information about the methodology and data used in the Allocation of Resources to RSNs, and RSN Organization, Cost, and Services sections of the report.

Overview of JLARC Analysis of Resource Allocation

As mentioned in the text of the report, there is a wide variation in the amount of funding per Medicaid-eligible person that is allocated to the RSNs. Total funding per Medicaid-eligible person in FY 2000 varied from \$271 to \$532 per Medicaid-eligible person. Additionally, when including the value of state hospital beds allocated to RSNs, the value of total resources allocated to RSNs varied from \$403 to \$793 per Medicaid-eligible person. The purpose of this analysis was to assess the equity of the MHD's allocation of resources to the RSNs. In order to assess the equity of resource allocation, JLARC conducted multiple regression analysis using Statistical Package for Social Science statistical software in an attempt to determine (a) what factors are associated with variations in funding to RSNs, and (b) whether differences in the amount of resources allocated to RSNs result in differences in the amount or type of services provided by RSNs. For example, a variation in the amount of resources allocated to RSNs might be equitable if there are differences in the prevalence of serious mental illness, differences in the severity of clients served, or differences in the cost of providing service among RSNs. Multiple regression was used to determine whether differences in funding are associated with differences in such factors, and thus to assess the equity of the distribution of funding.

JLARC selected total funding per Medicaid-eligible person as the primary indicator for RSN funding levels as opposed to other possible indicators such as total funding per capita. Total funding per Medicaid-eligible person was chosen as the primary indicator for RSN funding levels because the MHD's contracts with RSNs require the RSNs to make a full range of mental health services available to all Medicaid-eligible residents who need service. In other words, the MHD's managed care contracts with the RSNs require the RSNs to insure the Medicaid-eligible population for mental health services. While a more limited range of services are required to be provided to the entire population, most of the system resources are dedicated to the Medicaid-eligible population. Additionally, the strong correlation between the number of people needing

public mental health services and the number of Medicaid-eligible people in each RSN suggests that the number of Medicaid-eligible people is a very good proxy for the number of people needing public mental health services in each RSN.

Overview of JLARC Analysis of RSN Expenditures

Similar to the variation in RSN funding per Medicaid-eligible person, there are also wide variations in RSN expenditures per client served. RSN expenditures per client served in CY 1999 ranged from \$1,344 to \$3,965. The purpose of the JLARC RSN expenditure analysis was to identify factors that are associated with variations in expenditures per client among RSNs. For example, factors such as economies of scale, the severity of the clients served, the nature of the service provided (e.g., individual versus group service), the amount of administrative costs, or geographic cost differences might help to explain differences in expenditures per client among RSNs.

Overview of the Data Used in the JLARC Analyses

The variables used in JLARC's RSN-level analyses were based on data in the following categories:

- RSN demographic information (e.g., population of RSN, average wage levels of counties within the RSN)
- RSN funding information (e.g., inpatient and outpatient funding levels, state hospital beds allocated)
- RSN expenditure information (e.g., total expenditures, direct service expenditures, administrative expenditures)
- RSN client characteristic information (e.g., number of Medicaid-eligible persons, numbers of clients served, breakdown of clients by age group, severity levels of clients)
- RSN service information (e.g., hours of service provided, hours of services by type of service provided, number of clients served as a percentage of total population)
- RSN prevalence of mental illness information (e.g., the estimated number of people within each RSN who are seriously mentally ill, need mental health services, and are eligible for public mental health services)

Using multiple linear regression, we attempted to determine which factors (among the variables discussed above) were associated with differences in funding per Medicaid-eligible person among RSNs.

List of Variables and Sources of Data

A complete list of the variables JLARC used in its RSN-level analyses is provided on the pages that follow. The list includes the source of data used for each variable and our comments (if any) on the data used.

RSN Demographic Information

Variable	Source of Data	Comments
RSN Population	Office of Financial Management	JLARC added together the
	1999 county population	population of each county for
	estimates.	multi-county RSNs to arrive at
		the RSN total population.
Average County Wage	Employment Security	JLARC calculated the average
	Department calculations of the	wage for each RSN by weighting
	1999 average wage for covered	the average wage for each county
	employees for each county.	within an RSN by the population
		of that county.
RSN Proximity to a State	JLARC calculation.	RSNs that contain a state hospital
Hospital		within its boundaries were given
		a score of "0." RSNs that are
		adjacent to an RSN containing a
		state hospital were given a score
		of "1"—except for Greater
		Columbia RSN. (Although
		portions of Greater Columbia
		RSN are located adjacent to
		Spokane RSN, much of the
		population of the RSN is located
		at a considerable distance from
		Eastern State Hospital.) The
		RSNs located at greater distances
		from a state hospital were given a
		score of "2" or "3".

RSN Funding Information

Variable	Source of Data	Comments
FY 2000 Outpatient Funding	MHD budget information	
	provided by MHD fiscal staff.	
FY 2000 Inpatient Funding	MHD budget information	
	provided by MHD fiscal staff.	
FY 2000 Total Funding	MHD budget information	
-	provided by MHD fiscal staff.	
FY 2000 Outpatient Funding per	JLARC calculated by dividing	
Medicaid-eligible Person	outpatient funding by the number	

	of Medicaid-eligible persons.	
FY 2000 Inpatient Funding per	JLARC calculated by dividing	
Medicaid-eligible Person	inpatient funding by the number	
	of Medicaid-eligible persons.	
FY 2000 Total RSN Funding per	JLARC calculated by adding	
Medicaid-eligible Person	outpatient and inpatient funding	
	per Medicaid-eligible person.	
FY 2000 Total RSN Funding per	JLARC calculated by dividing	
Capita	total funding by the RSN	
	population.	

Variable	Source of Data	Comments
FY 2000 Total RSN Funding per	JLARC calculated by dividing	Comments regarding the
Person Needing Service	total RSN funding by the number	PEMINS study are made in the
	of people needing service in each	RSN Prevalence section below.
	RSN as estimated in the PEMINS	
	study.	
Allocated State Hospital Beds	Information provided by the MHD.	
Allocated State Hospital Beds	JLARC calculated by dividing	
per Medicaid-eligible Person	allocated state hospital beds by	
per iviculcula-engiole i erson	the number of Medicaid-eligible	
	persons in each RSN.	
Imputed Value of State Hospital	JLARC calculated by dividing	
Beds	total FY 99 state hospital	
Beds	expenditures by the total state	
	hospital beds to arrive at a value	
	of each state hospital bed, and	
	then multiplied that value by the	
	number of beds allocated to each	
	RSN.	
Total RSN Actual and Imputed	JLARC calculated by adding	
Funding	total RSN funding and imputed	
	value of state hospital beds.	
Total RSN Actual and Imputed	JLARC calculated by dividing	
Funding per Medicaid-eligible	total RSN actual and imputed	
Person	funding by the number of	
	Medicaid-eligible persons in each	
	RSN.	
Total RSN Actual and Imputed	JLARC calculated by dividing	Comments regarding the
Funding per Person Needing	total RSN actual and imputed	PEMINS study are made in the
Service	funding by the number of people	RSN Prevalence section below.
	needing service as estimated by	
	the PEMINS study.	
Total RSN Actual and Imputed	JLARC calculated by dividing	
Funding per Capita	total RSN actual and imputed	
	funding by the RSN population.	
Adequacy of Medicaid Match	Information provided by MHD	
(amount by which state funding	fiscal staff.	

is sufficient or insufficient to match federal Medicaid		
revenue).		
Percent Funding Generated by	JLARC calculated by dividing	
Disabled Medicaid-eligibles	the amount of (federal) funding	
	generated by disabled Medicaid-	
	eligibles into total federal	
	funding.	

RSN Expenditure Information

Variable	Source of Data	Comments
RSN Total Expenditures	From work performed by JLARC contractor Sterling and Associates.	
Percent RSN Administrative Costs	From work performed by JLARC contractor Sterling and Associates.	
Percent Provider Administrative Costs	From work performed by JLARC contractor Sterling and Associates.	
Expenditures per Client Served	Calculated by JLARC by dividing RSN total expenditures by the number of clients served in each RSN.	Issues regarding the consistency of how providers count the number of clients served are discussed in the RSN Service section below.
Expenditures per Service Hour	Calculated by JLARC by dividing RSN total expenditures by the number of service hours provided within each RSN.	Issues regarding the consistency of how providers count the number of clients served and the number of service hours provided are discussed in the RSN Service section below.
RSN Uses Administrative Service Organization	Calculated by JLARC based on whether an RSN subcontracts with an Administrative Service Organization (ASO).	

RSN Client Characteristic Information

Variable	Source of Data	Comments
Number of Total Medicaid-	Data provided by MHD fiscal	
eligibles	staff.	
Number of Disabled Medicaid-	Data provided by MHD fiscal	
eligibles	staff.	
Medicaid-eligibles as a Percent	Calculated by JLARC by	
of Total Population	dividing the number of	
_	Medicaid-eligibles into the total	

	RSN population.	
Proportion of Disabled	Calculated by JLARC by	
Medicaid-eligibles	dividing the number of disabled	
	Medicaid-eligibles into the	
	number of total Medicaid-	
	eligibles.	
Disabled Per Capita	Calculated by JLARC by	
-	dividing disabled Medicaid-	
	eligibles into total RSN	
	population.	
Variable	Source of Data	Comments
Unduplicated Clients Served	CY 1999 data provided by MHD information services staff.	JLARC survey of RSNs found some inconsistencies in how clients are counted by providers within RSNs.
Unduplicated Medicaid Clients	CY 1999 data provided by MHD	JLARC survey of RSNs found
	information services staff.	some inconsistencies in how
		clients are counted by providers within RSNs.
Unduplicated Non-Medicaid	CY 1999 data provided by MHD	JLARC survey of RSNs found
Clients	information services staff.	some inconsistencies in how
		clients are counted by providers
		within RSNs.
Unduplicated Children Served	CY 1999 data provided by MHD	JLARC survey of RSNs found
	information services staff.	some inconsistencies in how
		clients are counted by providers
		within RSNs.
Unduplicated Adults Served	CY 1999 data provided by MHD	JLARC survey of RSNs found
	information services staff.	some inconsistencies in how
		clients are counted by providers
H 1 1 4 1FH 1 G 1	CV 1000 1 4 11 11 MID	within RSNs.
Unduplicated Elderly Served	CY 1999 data provided by MHD information services staff.	JLARC survey of RSNs found
	information services staff.	some inconsistencies in how
		clients are counted by providers within RSNs.
Priority 1 Clients Served	CY 1999 data provided by MHD	JLARC survey of RSNs found
(Priority is a measure of the level	information services staff.	some inconsistencies in how
of severity of the client)	information services start.	clients are counted by providers
or severity of the enemy		within RSNs. Additionally,
		JLARC survey of RSNs found
		that definitions of Priority Codes
		are not clear to RSNs.
Priority 2 Clients Served	CY 1999 data provided by MHD	JLARC survey of RSNs found
.,	information services staff.	some inconsistencies in how
		clients are counted by providers
		within RSNs.
Priority 3 Clients Served	CY 1999 data provided by MHD	JLARC survey of RSNs found
	information services staff.	some inconsistencies in how
		clients are counted by providers
		within RSNs.

Average Priority of Clients	Calculated by JLARC by	JLARC survey of RSNs found
Served	dividing total priority score of all	some inconsistencies in how
	clients by the number of clients	clients are counted by providers
	served.	within RSNs.
Percentage Priority 1 Clients	Calculated by JLARC by	MHD's definition for "Priority 1"
Served	dividing Priority 1 clients served	clients appears least ambiguous.
	by unduplicated clients served.	Therefore, the percentage of
		Priority 1 clients served is likely
		the best indicator of the relative
		severity of the clients served.

Variable	Source of Data	Comments
Percentage Priority 2 Clients	Calculated by JLARC by	The MHD definition for "Priority
Served	dividing Priority 2 clients served	1" clients appears to be least
	by unduplicated clients served.	ambiguous. Therefore, the
		percentage of Priority 1 clients
		served is likely the best indicator
		of the relative severity of the
		clients served among RSNs.
Percentage Priority 3 Clients	Calculated by JLARC by	The MHD definition for "Priority
Served	dividing Priority 3 clients served	1" clients appears to be least
	by unduplicated clients served.	ambiguous. Therefore, the
		percentage of Priority 1 clients
		served is likely the best indicator
		of the relative severity of the
		clients served among RSNs.
Percentage Medicaid Clients	Calculated by JLARC by	JLARC survey of RSNs found
Served	dividing Medicaid clients served	some inconsistencies in how
	into unduplicated clients served.	clients are counted by providers
		within RSNs.
Percentage Children Served	Calculated by JLARC by	JLARC survey of RSNs found
	dividing children served into	some inconsistencies in how
	unduplicated clients served.	clients are counted by providers
		within RSNs.
Percentage Adults Served	Calculated by JLARC by	JLARC survey of RSNs found
	dividing adults served into	some inconsistencies in how
	unduplicated clients served.	clients are counted by providers
		within RSNs.
Percentage Elderly Served	Calculated by JLARC by	JLARC survey of RSNs found
	dividing elderly served into	some inconsistencies in how
	unduplicated clients served.	clients are counted by providers
	C. I. I. H. H. D.C.I.	within RSNs.
Clients Served Per Capita	Calculated by JLARC by	JLARC survey of RSNs found
	dividing unduplicated clients	some inconsistencies in how
	served into total RSN population.	clients are counted by providers
Cliente Comedica Duene (i C	Calandate d las III ADC las	within RSNs.
Clients Served as a Proportion of	Calculated by JLARC by	JLARC survey of RSNs found
Total Medicaid-eligibles	dividing unduplicated clients	some inconsistencies in how
	served into total Medicaid-	clients are counted by providers

eligibles.	within RSNs.

RSN Service Information

Variable	Source of Data	Comments
Day Treatment Hours	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
		count service hours.
Group Hours	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
		count service hours.
Individual Service Hours	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
		count service hours.
Medication Management Hours	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
		count service hours.
Total Service Hours	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
		count service hours.
Service Hours to Medicaid	Provided by MHD information	JLARC surveys of RSNs and
Clients	services staff.	providers found substantial
		inconsistencies in how providers
		count service hours.
Service Hours to non-Medicaid	Provided by MHD information	JLARC surveys of RSNs and
Clients	services staff.	providers found substantial
		inconsistencies in how providers
a		count service hours.
Service Hours to Children	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
	D 11 11 MID 10 11	count service hours.
Service Hours to Adults	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial
		inconsistencies in how providers
G : H · FILL	D 11 11 MID: 6	count service hours.
Service Hours to Elderly	Provided by MHD information	JLARC surveys of RSNs and
	services staff.	providers found substantial

		inconsistencies in how providers
Camaia a Harrisa wa Madia id	H ADC11-4-d h diidi	count service hours.
Service Hours per Medicaid Client	JLARC calculated by dividing service hours to Medicaid clients	JLARC surveys of RSNs and
Chefit		providers found substantial
	by Medicaid clients served.	inconsistencies in how providers count service hours. Additionally,
		JLARC survey of RSNs found
		some inconsistencies in how
		providers count the number of
		clients served.
Variable	Source of Data	Comments
Service Hours per non-Medicaid	JLARC calculated by dividing	JLARC surveys of RSNs and
Client	service hours to non-Medicaid	providers found substantial
	clients by non-Medicaid clients	inconsistencies in how providers
	served.	count service hours. Additionally
		JLARC survey of RSNs found
		some inconsistencies in how
		providers count the number of
		clients served.
Service Hours per Child Served	JLARC calculated by dividing	JLARC surveys of RSNs and
_	service hours to children by	providers found substantial
	children served.	inconsistencies in how providers
		count service hours. Additionally
		JLARC survey of RSNs found
		some inconsistencies in how
		providers count the number of
		clients served.
Service Hours per Adult Served	JLARC calculated by dividing	JLARC surveys of RSNs and
	service hours to adults by adults	providers found substantial
	served.	inconsistencies in how providers
		count service hours. Additionally
		JLARC survey of RSNs found
		some inconsistencies in how
		providers count the number of
Carrier Harry on Eldada Cliant	H ADC11-4-d h diidi	clients served.
Service Hours per Elderly Client Served	JLARC calculated by dividing	JLARC surveys of RSNs and
Served	service hours to elderly clients by elderly clients served.	providers found substantial
	elderry chemis served.	inconsistencies in how providers count service hours. Additionally
		JLARC survey of RSNs found
		some inconsistencies in how
		providers count the number of
		clients served.
Days Inpatient Service – State	Provided by MHD information	TATALO DOL TOU.
Hospitals	services staff.	
Days Inpatient Service –	Provided by MHD information	
Community Hospitals	services staff.	
State Hospital Inpatient Days per	JLARC calculated by dividing	JLARC survey of RSNs found
Client Served	state hospital inpatient days by	some inconsistencies in how clients
	unduplicated clients served.	are counted by providers.

Community Hospital Inpatient	Calculated by dividing	JLARC survey of RSNs found
Days per Client Served	community hospital inpatient	some inconsistencies in how clients
	days by unduplicated clients	are counted by providers.
	served.	
Total Inpatient Days per Client	Calculated by adding state	JLARC survey of RSNs found
Served	hospital inpatient days per client	some inconsistencies in how clients
	and community hospital inpatient	are counted by providers.
	days per client.	

RSN Prevalence of Mental Illness Information

Variable	Source of Data	Comments
RSN Prevalence Rate	PEMINS study.	The RSN prevalence rate
Number of Persons Needing	JLARC calculated by	estimate is from the 1999 study
Service	multiplying the RSN prevalence	entitled "Prevalence Estimate and
	rate (using the estimated	Need for Service Study"
	prevalence rate under the	(PEMINS), authored by
	medium definition of need from	University of Texas Professor
	the PEMINS study) by the RSN	Charles E. Holzer III on behalf of
	population.	the Research and Data Analysis
Number of People Needing	JLARC calculated by dividing	Office of DSHS. Our comments
Service per Medicaid-eligible	the number of people needing	regarding this study are noted in
	service into the number of	the section of the report that
	Medicaid-eligible persons.	discusses prevalence studies.
Number of People Needing	JLARC calculated by dividing	
Service per Capita	the number of people needing	
	service into the RSN population.	

General Comments on Data Validity

As noted, there are a variety of sources for the data used in JLARC's RSN-level funding and expenditure analyses. In every instance, JLARC attempted to use the most valid data available. Nevertheless, we are aware of problems with some of the data used. The most significant issues with data reliability regard the client service data from MHD, particularly the data relating to the hours of service provided to clients. These problems are described in the report and are the subject of recommendations in the report. Because of the substantial issues related to the comparability of RSN client service hour data, we limited our usage of this data in our analyses, and none of our major findings (findings leading to recommendations) from the regression analyses are based on client service hour data.

Regression Analysis Results - Resource Allocation

Correlation Between Number of People Needing Service and the Number of Medicaid-Eligible Persons

We noted that there is a very strong correlation between the number of people needing public mental health services (as measured by the PEMINS study) and the number of Medicaid-eligible persons in each RSN. In fact, the correlation between these variables was greater than .99. The strength of this correlation remains very strong when accounting for differences in RSN population (by looking at the correlation between the number of people needing service and the number of Medicaid-eligibles as a proportion of the total population in each RSN). The

correlation between the proportion of the RSN population needing public mental health services, and the proportion of the RSN population eligible for Medicaid was .93.

To some extent, the strength of this correlation is attributable to the methodology used by the PEMINS study to identify those who are in need of public mental health services. To determine which proportion of the total seriously mentally ill population that is eligible for public mental health services, the PEMINS study assumed that only those whose income was at 200 percent of poverty or less would be eligible for public mental health services. While there is no statutory income limitation for public mental health services in Washington, the limitations of resources available for public mental health services results in a limitation of the services available for non-Medicaid-eligible persons. While the income limitation (200 percent of the federal poverty level) used in the PEMINS study is somewhat more generous than Medicaid eligibility standards, the methodology of the PEMINS study to limit the estimates of need for public mental health services based on income probably is a factor in explaining the high correlation between the number of Medicaid-eligibles in each RSN and the number of people needing public mental health services.

The high correlation between the number of Medicaid-eligibles within an RSN and the number of people needing public mental health services supports the use of the number of Medicaid-eligibles as a basis for allocating funds for public mental health services to RSNs. *In other words, Medicaid eligibility is a good proxy for the regional prevalence of those needing public mental health services*. This is not to say that everybody who is eligible for Medicaid is in need of public mental health services. In fact, in any given RSN, there are approximately ten times the number of Medicaid-eligible persons as there are people in need of public mental health services. But the number of people needing public mental health services rises proportionately with the number of Medicaid-eligibles, making the number of Medicaid-eligible persons a reasonable basis for allocating funds to RSNs.

Factors Associated with Variations in Funding per Medicaid-Eligible Among RSNs

As mentioned above, funding per Medicaid-eligible person ranges from \$271 to \$532 among RSNs. This variation in funding is an artifact of the previous fee for service method of funding providers, since the capitated payment rates per Medicaid-eligible person to RSNs were originally set to maintain the previous geographic distribution of funds. There is considerable concern among many of the RSNs that these rates are not equitable. In order to assess the equity of the allocation of resources to RSNs, our regression analysis attempted to determine whether differences in payment rates to RSNs per Medicaid-eligible person reflect differences in RSN mental illness prevalence rates, or differences in the severity of the clients served. These are factors that might justify substantial differences in payment rates to RSNs.

We found that the prevalence of mental illness (as measured by the PEMINS study) and the severity of the clients served (as measured by the percentage of Priority 1 clients) are not strongly associated with variations in payment rates per Medicaid-eligible person to RSNs. In fact, higher prevalence was actually negatively correlated with RSN payment rates per Medicaid-eligible person (although this negative correlation was not statistically significant). The strongest factor we found in explaining variations in payment rates was RSN population. The higher the population of the RSN, the higher the payment rate per Medicaid-eligible person. This factor alone explained 63 percent of the variation in RSN payment rates.

Factors Associated with Variations in State Hospital Beds to RSNs

There are also questions concerning the equity of the allocation of state hospital beds to RSNs. JLARC calculated the value of a state hospital bed by dividing total state hospital expenditures by the total number of state hospital beds. Based on this value, the value of the state hospital beds allocated to RSNs ranges from \$90 to \$403 per Medicaid-eligible person.

We found that that allocation of state hospital beds is strongly associated with the RSNs proximity to the state hospital. RSNs that contain state hospitals are allocated the greatest number of beds per Medicaid-eligible person, while RSNs located more distantly from the state hospitals are allocated fewer beds per Medicaid-eligible person. This variable alone explains 68 percent of the variation in state hospital beds per Medicaid-eligible person. Variables that were not significant in explaining variations in the allocation of state hospital beds include the proportion of Medicaid-eligible persons who are disabled, the proportion of the RSN population needing public mental health services, the proportion of high priority clients served, and the population of the RSN.

Summary of Regression Results - Resource Allocation

- The number of Medicaid-eligibles is a good proxy for the number of people needing public mental health services.
- Allocation of funding per Medicaid-eligible person to RSNs is strongly associated with RSN population. It is not associated with the number of people needing service or the severity of the clients served.
- Allocation of state hospital beds to RSNs is strongly associated with the proximity of the RSN to the state hospital. It is not strongly associated with the number of people needing service or the severity of the clients served.

Regression Results - Number of Clients Served Among RSNs

The proportion of the total RSN population served by the public mental health system varies between 1.4 percent and 3.2 percent among RSNs. We attempted to identify whether differences in the proportion of the population served are associated with (1) differences in the proportion of the population needing public mental health services, (2) differences in RSN funding levels, (3) differences in the severity level of the clients served, (4) differences in expenditures per client served, (5) differences in RSN population, (6) geographic cost differences (as measured by the average wage for all employees in each county within an RSN), or (7) differences in administrative costs at the RSN or provider level.

We found that differences in the proportion of the total population served were strongly associated with differences in expenditures per client, the proportion of the population needing service, RSN funding per person needing service, and geographic cost differences. These variables explain 96 percent of the variation in the proportion of the population served. The amount of expenditures per client served was most strongly associated with the proportion of the population served. Higher expenditures per client are associated with a lower proportion of the population served. The proportion of the population needing service was also strongly associated with the proportion of the population served with a higher proportion of the population served (note: this association tends to support the validity of the regional prevalence estimates of the PEMINS study). Higher RSN funding per person needing service is associated with a higher proportion of the population served. Also, higher average wages for all employees within an RSN is somewhat associated with a higher proportion of the population served. Factors not associated with the proportion of the population served include the severity level of

the clients served, administrative costs at the RSN or provider level, or the population of the RSN.

We might have expected to find that RSNs with higher funding levels per Medicaid-eligible person are able to serve a greater proportion of non-Medicaid-eligible clients. This was not the case. In fact, higher levels of funding per Medicaid-eligible person are associated with a higher proportion of Medicaid-eligible clients served. This, along with the strong relationship between the number of people needing public mental health services and the number of people served, suggests that RSNs are attempting to serve those who need service regardless of funding level.

Regression Results - RSN Expenditures Per Client Served

RSN CY 1999 expenditures per client served range from \$1,344 to \$3,965. We attempted to identify whether factors such as the nature of the clients served, RSN economies of scale, administrative costs at the RSN and provider level, the nature of the service provided, or the extent of utilization of inpatient services in community or state hospitals affects variations in expenditures per client served.

We found that the amount an RSN is funded per person needing service was most strongly associated with variations in expenditures per client. This factor alone explains 56 percent of the variation in outpatient expenditures per client among RSNs. Factors considered, but not found to be significant in explaining variations in expenditures per client, include the severity of the clients, administrative costs at the RSN or provider level, geographic cost differences, the nature of the services provided within an RSN, and usage of state and community hospital beds.

Conclusions Regarding RSN-Level Analyses of Funding, Proportion of Population Served, and Expenditures per Client Served

- The number of Medicaid-eligible persons among RSNs is a good proxy to use as the basis for funding allocation for the number of people needing public mental health services.
- Variations in funding per Medicaid-eligible person are most closely related to RSN population. Funding variations (per Medicaid-eligible person) are not associated with the proportion of the population needing mental health services or the severity of the clients served
- Higher funding per Medicaid-eligible person is associated with a higher proportion of total clients served that are Medicaid-eligible.
- The strong association between the number of people estimated to need public mental health service and the number of people served suggests that RSNs are trying to serve the people who need service, regardless of the amount of funding provided.
- RSNs with higher amounts of funding spend more per client served while RSNs with lower funding spend less. Since RSNs are attempting to serve the people who need service regardless of funding level, and higher-funded RSNs spend more per client served than lower-funded RSNs, the results of this analysis support the argument that disparities in funding among RSNs lead to inequitable service.

APPENDIX 6 – RSN FUNDING, EXPENDITURES, AND CLIENT SERVICE COMPARISONS

See following pages (86-87).

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RSN Fundi	RSN Funding, Expenditures, and Client Service Comparisons	s, and Client	Service Comp	arisons		
RSN	Peninsula	Pierce	Southwest	Spokane	Thurston/Mason	Timberlands
RSN Population	323,200	700,000	94,100	414,500	251,300	94,400
Average Wage for Counties Within RSN	\$ 26,722	\$ 27,499	\$ 28,131	\$ 26,561	\$ 27,641	\$ 23,270
RSN Proximity to State Hospital ¹	2	0	2	0	~	2
Outpatient Funding per Medicaid-eligible	\$ 379	\$ 395	\$ 254	\$ 311	\$ 277	\$ 213
Inpatient Funding per Medicaid-eligible	\$ 54	\$ 75	\$ 84	\$ 81	\$ 81	\$ 54
Total Funding per Medicaid-eligible	\$ 439	\$ 479	\$ 344	\$ 398	\$ 363	\$ 271
Value of Allocated State Hospital Beds per Medicaid-eligible	\$ 207	\$ 403	\$ 184	\$ 283	\$ 187	\$ 238
Total Funding and Value of Allocated State Hospital Beds per Medicaid-eligible Person	\$ 646	\$ 882	\$ 528	\$ 681	\$ 550	\$ 509
Expenditures per Client Served	\$ 2,646	\$ 2,680	\$ 1,344	\$ 2,624	\$ 2,656	\$ 1,358
RSN Administrative Expenditures as a Percent of Total Expenditures	2%	8%	%9	10%	7%	8%
Provider Administrative Expenditures as a Percent of Total Expenditures	16%	10%	7%	10%	12%	17%
Medicaid-eligible Persons as a Percent of Total Population	11%	13%	15%	14%	12%	17%
Number of Clients Served	5,858	16,471	3,058	9,457	3,936	2,823
Client Served as a Percentage of Total Population	1.8%	2.4%	3.2%	2.3%	1.6%	3.0%
Percentage of Clients Served Who Are Priority 1	24%	45%	15%	36%	37%	21%
Percentage of Clients Served Who Are Medicaid-eligible	27%	53%	56%	58%	%99	47%
Percent Children Served	25%	26%	28%	23%	26%	30%
Percent Adults Served	%09	64%	65%	22%	62%	20%
Percent Elderly Served	14%	%6	%9	18%	%6	19%
Estimated Number of People Needing Public Mental Health Services	4,686	10,780	2,014	8,249	3,770	2,143
Estimated Number of People Needing Service as a Percentage of Total Population	1.4%	1.5%	2.1%	2.0%	1.5%	2.3%

¹ RSNs that contain a state hospital within its boundaries were given a score of "0." RSNs that are adjacent to an RSN containing a state hospital were given a score of "1"—except for Greater Columbia RSN. (Although portions of Greater Columbia RSN are located adjacent to Spokane RSN, much of the population of the RSN is located at a considerable distance from Eastern State Hospital.) The RSNs located at greater distances from a state hospital were given a score of "2" or "3".

200	Chelan-) In	Grays	Greater	Scily	Northood	North	North
KOIN	Douglas	Clark	Tarbor	Columbia	Silly	Northeast	Central	Sound
RSN Population	94,700	337,000	67,700	581,000	1,677,000	66,400	124,900	931,200
Average Wage for Counties Within RSN	\$ 20,821	\$ 29,323	\$ 24,895	\$ 24,679	\$ 41,274	\$ 23,712	\$ 20,168	\$ 26,406
RSN Proximity to State Hospital ²	3	2	2	2	1	2	3	3
Outpatient Funding per Medicaid-eligible	\$ 217	\$ 293	\$ 285	\$ 268	\$ 441	\$ 272	\$ 242	\$ 340
Inpatient Funding per Medicaid-eligible	\$ 66	\$ 78	\$ 64	\$ 56	\$ 82	\$ 75	\$ 69	\$ 52
Total Funding per Medicaid-eligible	\$ 287	\$ 375	\$ 353	\$ 329	\$ 532	\$ 351	\$ 318	\$ 398
Value of Allocated State Hospital Beds per Medicaid-eligible	\$ 116	\$ 171	\$ 248	\$ 107	\$ 261	\$ 136	\$	\$ 140
Total Funding and Value of Allocated State Hospital Beds per Medicaid- eligible Person	\$ 403	\$ 547	\$ 601	\$ 436	\$ 793	\$ 486	\$ 408	\$ 538
Expenditures per Client Served	\$ 1,959	\$ 2,561	\$ 1,881	\$ 2,877	\$ 3,965	\$ 2,470	\$ 3,322	\$ 2,128
RSN Administrative Expenditures as a Percent of Total Expenditures	9%	10%	2%	%9	%2	10%	9%	2%
Provider Administrative Expenditures as a Percent of Total Expenditures	11%	13%	20%	14%	12%	17%	20%	12%
Medicaid-eligible Persons as a Percent of Total Population	16%	11%	19%	18%	%6	18%	22%	11%
Number of Clients Served	2,014	6,032	2,134	12,161	22,758	1,531	2,416	18,168
Client Served as a Percentage of Total Population	2.1%	1.8%	3.2%	2.1%	1.4%	2.3%	1.9%	2.0%
Percentage of Clients Served Who Are Priority 1	79%	41%	48%	36%	53%	31%	18%	76%
Percentage of Clients Served Who Are Medicaid-eligible	40%	%29	20%	%99	81%	52%	20%	43%
Percent Children Served	24%	41%	32%	30%	28%	27%	31%	27%
Percent Adults Served	92%	51%	22%	21%	23%	62%	58%	63%
Percent Elderly Served	13%	%2	12%	10%	14%	%8	8%	8%
Estimated Number of People Needing Public Mental Health Services	1,733	5,325	1,638	11,562	17,776	1,527	2,960	12,012
Estimated Number of People Needing Service as a Percentage of Total Population	1.8%	1.6%	2.4%	2.0%	1.1%	2.3%	2.4%	1.3%

² RSNs that contain a state hospital within its boundaries were given a score of "0." RSNs that are adjacent to an RSN containing a state hospital were given a score of "1"—except for Greater Columbia RSN. (Although portions of Greater Columbia RSN are located adjacent to Spokane RSN, much of the population of the RSN is located at a considerable distance from Eastern State Hospital.) The RSNs located at greater distances from a state hospital were given a score of "2" or "3".

Appendix 7 – Provider Contracting Practices Matrix

See following pages (90-91).

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	Northeast	Flat monthly payment	Yes	Services to priority populations based on available resources	N	N/A	Yes	Incentive for early contact w/ hospital discharges	Provider	RSN
ix	North Central	Contractor receives a fixed percentage of monthly RSN funds.	Yes	Services to priority populations based on available resources	No	ΝΆ	No	N/A	Provider	Provider (RSN authorizes elective inpatient placements)
Provider Contracting Practices Matrix	King	\$ per client varies by level of service (tier) authorized by UBH, other specific services paid by flat monthly or daily rate	No, payments for authorized tier service is based on a \$ amount per client, client may also receive carveout services, e.g. residential	No, same tier funding is add-on provided to serve authorized non-eligibles, who may also receive carveout services	Yes	\$280-\$8976 per client annually based on tier; client may also receive carveout services	Yes	Incentives for increase in number of Asian/Pacific Islander chalder active children served, reduction in inpatient days, increase in age-appropriate activities, decrease in psychiatric symptoms, decrease in homelessness. Penalties for not meeting detailed contractual requirements	нвп	нвп
ntracting Pra	Greater Columbia	Flat monthly payment	Yes	Services to priority populations based on available resources	No	∀ /N	No	N/A	Provider	RSN
Provider Co	Grays Harbor	Flat monthly payment	Yes	Yes, provider required to serve 340 non-Medicaid eligible persons	NO	₹ 2	Yes	Penalties for not meeting detailed standards relating to staffing, filing required reports, state hospital census, priority population svcs, etc.	Provider	Provider
Appendix 7—I	Clark	\$ per service hour	No, payment for authorized service is based on a \$ amount per service hour	No, provider paid on a per service hour basis for all clients authorized for service	Yes	\$45-\$58 per service hour	Yes	20% of total funds contingent upon meeting goals related to admin. cost % Medicaid svcs, satisfaction, readmissions	UВН	UBH
A	Chelan-Douglas	Flat monthly payment for outpatient, other payments for crisis services	Yes	Services to priority populations based on available resources	Yes	\$269.82-\$350 per outpatient client/month (contingent upon serving a minimum # of clients)	Yes	Funds withheld if minimum # of clients and svc hrs not met. Funds added if output targets met.	Provider authorizes lower levels of services, RSN authorizes higher levels	RSN
	_	Payment Method	Provider required to serve all Medicaid eligibles within fixed payment amount?	Provider required to serve Non- Medicaid eligible people within fixed payment amount? (Note: crisis services must be provided to all in all RSNs)	Does contract identify a payment rate per client or service hour?	Amount of payment per client or per service hour	Other payment incentives in contract?	Describe other payment incentives	Describe who authorizes outpatient services	Describe who authorizes inpatient services
				Does RSM pass on insur provider?	nt rates for ntified in the sct?		nent e centives	In addition to incentives by the general payr ne, crainarian, arc there other financial in created by contrac frames		Who suthor eligibility fo

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	Timberlands	Flat rate per month	Yes	Yes, must serve low income clients eligible for service	No	ΝΑ	No	NA	Provider authorizes lower levels of services, RSN authorizes higher levels	Provider authorizes initial placement, RSN authorizes extensions
İ	Thurston-Mason	\$ per client per month, subject to a maximum monthly payment	Yes, to the extent that the amount of clients X the case rate exceeds the payment limit	Yes, to the extent that the amount of clients X the case rate exceeds the payment limit	Yes	\$333 to \$370 per authorized recipient per month	No	N/A	RSN	RSN
Provider Contracting Practices Matrix	Spokane	Flat rate per month (broken into various categories of service)	Yes	Services to priority populations based on available resources	No	ΝΑ	No	N/A	UВН	UBH
ntracting Pra	Southwest	Flat monthly payment for crisis, \$ per outpatient service hour	No, payments for authorized service is based on a \$ amount per service hour	No, payments for authorized service is based on a \$ amount per service hour	Yes	\$70 per standard hour	No	N/A	Third party contractor	RSN
Provider Co	Pierce	\$ per Medicaid-eligible (pays for Level I service), \$ per clients authorized for Level II, plus fee and cost related rates for specific services	Yes	Level I priority populations served within available resources; services for Level II priority populations funded as a % of total Level II Medicaid persons served	Yes	\$1.59 to \$4.15 per eligible per month, Level 1, \$500 to \$520 per recipient per month authorized Level II	Yes	Incentive for keeping WSH census down	Provider authorizes lower level of care (Level 1), RSN authorizes higher level of care (Level II)	RSN
Appendix 7—I	Peninsula	\$ per Medicaid eligible	Yes	Services to priority populations based on available resources	Yes	\$5.87 to \$110.24 per eligible (per 9-month billing period)	No	N/A	Provider	Provider
AF	North Sound	Provider network paid fixed percentage of PHP funds, other specific services paid flat monthly rate	Yes	Services to priority populations based on available resources as based on RSN approved contractor plan	No	N/A	Yes	Detailed penalties/sanctions for not meeting contract requirements. % inpatient savings directly related to providers hospital diversion program successes	Provider	Provider network
		Payment Method	Provider required to serve all Medicaid eligibles within fixed payment amount?	Provider required to serve Non-Medicaid eligible people within fixed payment amount? (Note: crisis services must be provided to all in all RSNs)	Does contract identify a payment rate per client or service hour?	Amount of payment per client or per service hour	Other payment incentives in contract?	Describe other payment incentives	Describe who authorizes outpatient services	Describe who authorizes inpatient services
				Does RSN pass on insura provider?	adt ni baititn	Are paymen services iden atnoo	eneral sm, are ncial ed by sions?	In addition to inc created by the g payment mechani there other fina incentives creat contractual provi		Who author eligibility fo

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APPENDIX 8 – METHODOLOGY AND DATA USED FOR JLARC'S ANALYSIS OF PROVIDER-LEVEL EXPENDITURES

This appendix provides additional detail about the methodology and data used in the *Community Mental Health Provider Cost and Service Analysis* section of the report.

Overview of JLARC's Analysis of Provider-Level Expenditures

The text of the report describes the work of JLARC's contractor, Sterling Associates, to recast the expenditures of a sample of 35 community mental health providers in order to provide consistent comparisons of direct service, direct service support, and administrative costs among providers. Sterling Associate's analysis provided consistent cost information for these 35 providers. JLARC combined the cost data with client service data collected by the MHD to compare expenditures per unit of service (e.g., cost per client, cost per service hour) among the sampled providers.

There is a wide variation in the unit cost of service among the sample providers. CY 1999 expenditures per client ranged from \$858 to \$6,681 among the 35 sample providers, while expenditures per service hour ranged from \$57 to \$285. The goal of JLARC's provider-level expenditure analysis was to use multiple regression analysis to identify whether factors such as economies of scale, geographic cost differences, the nature of the clients served, or the nature of the services provided are associated with differences in unit costs among providers. Ideally, this type of analysis could determine why the costs of services (*efficiency*) differ among providers. Such information, combined with outcome information (*effectiveness*) would help to identify best practices that could be used as a benchmark to improve the efficiency and effectiveness of the public mental health system.

However, our analysis is limited for two reasons. First, as noted in the report, there are inconsistencies in how providers report cost and client service information to the MHD that make any comparisons of cost per unit of service suspect. The inconsistencies in cost reporting were addressed in the work done for JLARC by Sterling Associates, which involved recasting cost data for the 35 sampled providers. However, we did not attempt to recast client service data, primarily because we knew of no reasonable way to do so. Therefore, the comparisons of the unit costs of providers are suspect, particularly those comparisons involving the number of service hours provided (where the greatest inconsistencies of the data were noted). Second, there is almost no consistent information collected on client outcomes, making comparisons of service effectiveness impossible. In spite of these limitations, we conducted this analysis with the data that were available.

Overview of the Data Used in JLARC's Provider Expenditure Analysis

The variables used in JLARC's provider-level analysis were based on data in the following categories:

- Provider-level expenditure information (e.g., total expenditures, expenditures per client)
- Provider-level client characteristics information (e.g., severity level of the clients served, whether clients served are Medicaid-eligible)
- Provider-level service information (e.g., service hours provided, types of services provided)
- RSN-level fiscal and demographic information (e.g., RSN funding level, RSN administrative costs, average wages for counties within RSN)

The following tables illustrate the variables used in JLARC's provider expenditures analysis, the source of the data, and JLARC's comments on the validity of the data.

Provider-Level Expenditure Information

Variable	Source of Data	Comments
Total Expenditures	Sterling Associates Analysis	
Direct Service Expenditures	Sterling Associates Analysis	
Direct Service Support Expenditures	Sterling Associates Analysis	
Administrative Expenditures	Sterling Associates Analysis	
Percent Direct Service Expenditures	Sterling Associates Analysis	
Percent Direct Service Support	Sterling Associates Analysis	
Expenditures		
Percent Administrative Expenditures	Sterling Associates Analysis	
Average Clinician Salary and	Data provided to Sterling Associates	Some missing data, other data
Benefits	from sample providers	appears to be inaccurate.
Expenditures per Client	JLARC calculated based on Sterling	JLARC survey of RSNs found some
	Associates cost data and MHD	inconsistencies in how clients are
	client data	counted by providers within RSNs.
Expenditures per Service Hour	JLARC calculated based on Sterling	JLARC surveys of RSNs and
	Associates cost data and MHD	providers found substantial
	client data	inconsistencies in how providers
		count service hours.

Variable	Source of Data	Comments
Medicaid clients served	MHD client service data	JLARC survey of RSNs found some
		inconsistencies in how clients are
		counted by providers within RSNs.
Non-Medicaid clients served	MHD client service data	JLARC survey of RSNs found some
		inconsistencies in how clients are
		counted by providers within RSNs.
Percent Medicaid clients served	JLARC calculated from MHD	JLARC survey of RSNs found some
	client service data	inconsistencies in how clients are
		counted by providers within RSNs.
Number of Priority 1 Clients	MHD client service data	JLARC survey of RSNs found some
Served		inconsistencies in how clients are
		counted by providers within RSNs.

Provider-Level Client Characteristics Data

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APPENDIX 9—FINANCIAL AND SERVICE COMPARISONS OF SAMPLED PROVIDERS

SEE FOLLOWING PAGE (98).

Percent Priority 1 Service Percent 2% Clients Hours per Medical Served Client Clients 2% 16.8 18.5 49% 17.4 10.3 82.5 198 85.0 19.7 17.4 19.7 19.7 19.7 19.6 53.3 30.9 10.1 10.8 19.6 19.7 19.6 19.6 19.7 19.6 19.6 19.6 19.6 19.6 19.6 19.6 19.6							Appe	Appendix	6						
Experioritiues Percent Direct Alleriage Percent Direct Clients Clients Coult Percent Clients Coult Percent Clients Clients Coult Percent Clients Clients Coult Percent Clients			Fin	ancia	and		Comp	ariso	o	Samp	led P	Providers	ers		
Expenditures Direct Percent Service Salay Priority Service Percent				Percent		Percent	Average		Percent						
Per Characteristic per Services Administrative Support Annihistrative Services Administrative Support Annihistrative Services			Expenditures		Percent	Service	Salary		Priority 1	Service	Percent	Percent	Percent	Percent	Percent
per Olient Hour Costs	ш	penditures		Services	Administrative	Support	and	Clients	Clients	Hours per	Medicaid	Group	Individual	Day	Medication
\$ 3,722 \$ 122 74% 10% \$ 22,888 195 22% 106 \$ 52,888 168 52% 50,039 388 52,888 168 52% 50,038 388 58% 58% 51,988 58,088 168 58,088 188 52,888 188 188 52,888 188		ber Client	Hour	Costs	Costs	Costs	Benefits	Served	Served	Client	Clients	Service	Service	Treatment	Management
\$ 3,645 \$ 188 \$ 188 \$ 188 \$ 188 \$ 188 \$ 188 \$ 148 \$ 188 <		3,722	\$	74%	16%	10%		195	7%	16.8	25%	%8	95%	%0	%0
\$ 1.968 \$ 5 \$ 56.06 \$ 17% \$ 1700 45% \$ 10.3 \$ 28% \$ 17% \$ 29.076 \$ 1,200 45% \$ 10.3 \$ 28% \$ 17% \$ 29.08 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,902 \$ 1,102 \$ 24% \$ 27,06 \$ 2,403 \$ 14,408 \$ 14,408 \$ 1,408 <		3,645	s	%69	21%	20%		388	18%	18.5	74%	20%	%62	%0	1%
\$ 1,986 \$ 57 \$ 65% 19% 17% \$ 2,087 4,488 4,3% 34.5 64% \$ 1,932 \$ 1,932 \$ 1,932 \$ 1,132 \$ 1,663 \$ 1,633 \$ 1,		828	₽	28%	722%	17%		1,200	45%	10.3	85%	29%	63%	8%	1%
\$ 1,563 \$ 111 59% 124% 17% \$2,006 2,143 44% 174 51% \$ 1,563 \$ 1,663 \$ 1,663 \$ 11 59% 124% 17% 24% 234 174 51% \$ 1,563 \$ 160 \$ 10 17% 24% \$ 37,66 23% 27.2 659 234 71% 71% \$ 1,663 \$ 1940 \$ 17% \$ 17% \$ 32,66 30 23% 27.2 659 23.4 71% 71% \$ 2,644 \$ 10 \$ 20 \$ 10 \$ 20 \$ 20 20		1,968	⇔ (%59 -	16%	18%	\$	4,408	43%	34.5	64%	10%	44%	43%	3%
\$ 3,555 \$ 163 60% 10% 24% \$ 3,786 96 44% \$ 1,1% \$ 1,555 \$ 166 \$ 100 10% 24% \$ 3,786 96 14% \$ 1,1% \$ 2,460 \$ 100 76% 21% 32% 17% \$ 3,786 96 19% 27.2 18% \$ 1,869 \$ 100 76% 21% 32% 17% \$ 4,787 177 33% 27.2 58% \$ 2,440 \$ 100 76% 21% 27,787 457 46% 40.7 73% 47% \$ 2,440 \$ 100 76% 12% 21% 5.9,688 2.7 46% 2.7 50% \$ 2,640 \$ 100 76% 12% 12% 24% 2.7 44% 2.7 44% \$ 2,640 \$ 200 \$ 200 \$ 24% \$ 200 \$ 200 \$ 2.7 \$ 2.4 \$ 2.7 \$ 2.4 \$ 2.7 \$ 2.8 \$ 2.4 \$ 2.4 \$ 2.4		1,932	· •>	965	24%	17%	\$	2,103	49%	17.4	51%	11%	86%	%0 ,	4%
\$ 1,565 \$ 6,00 \$ 79% \$ 17% \$ 38,77 \$ 95,65 \$ 23,4 \$ 17% \$ 1,565 \$ 100 \$ 100 \$ 17%		3,555	· •> •	%09 20%	16%	24%	\$	3,736	44%	21.9	71%	32%	42%	19%	%/
\$ 1,400 \$ 194 \$ 17% \$ 17% \$ 13% \$ 19,000 \$ 19% \$ 1,20 <td></td> <td>1,563</td> <td>>) (</td> <td>%6/ </td> <td>17%</td> <td>2%</td> <td>)</td> <td>699</td> <td>23%</td> <td>23.4</td> <td>71%</td> <td>22%</td> <td>35%</td> <td>37%</td> <td>%9</td>		1,563	>) (%6/ 	17%	2%)	699	23%	23.4	71%	22%	35%	37%	%9
\$ 1,669 \$ 104 51% 32% 17% \$ 47,267 177 33% 9.7 73% \$ 2,649 \$ 107 75% 12% \$ 47,267 145 45% 32.5 73% \$ 2,649 \$ 107 75% 12% \$ 12% \$ 2,444 457 16% 40.3 50.78 40.3 50.78 40.3 50.79<		2,460	₩.	%92	21%	3%	8	96	19%	27.2	28%	19%	31%	49%	1%
\$ 6.641 \$ 5.06 \$ 10% \$ 25% \$ 16% \$ 541,857 \$ 15% \$ 45% \$ 32.5 \$ 76% \$ 2.674 \$ 50.74 \$ 50.764 \$ 457 \$ 66 77% 11% \$ 18% \$ 50.764 \$ 457 \$ 69% \$ 22.7 \$ 69% \$ 67% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 24.7 \$ 50% \$ 25.7 \$ 25.248 \$ 50.7 \$ 40.3 \$ 50.7<		1,869	€	21%	35%	17%	S	177	33%	9.7	73%	%0	91%	%0	%6
\$ 2,674 \$ 66 71% 11% 16% \$ 50,764 457 16% 40.3 59% \$ 2,649 \$ 107 75% 12% 74,102 50.76 16% 24.7 92% \$ 2,855 \$ 111 55% 12% 12% 47,102 50.79 50% 24.7 92% \$ 2,855 \$ 111 55% 12% 12% 26,88 2,679 65% 24.7 92% \$ 2,828 \$ 2,022 \$ 24,88 \$ 26,793 277 6% 7.3 44% \$ 2,022 \$ 2,022 \$ 24,88 \$ 26,793 277 6% 7.3 44% \$ 2,028 \$ 1,039 \$ 26,793 \$ 26,793 277 6% 7.3 44% \$ 2,028 \$ 1,039 \$ 25,240 \$ 1,039 \$ 36,754 \$ 1,039 \$ 26,7 \$ 28,7 \$ 1,886 \$ 2,048 \$ 36,744 \$ 30,102 \$ 34,8 \$ 23,6 \$ 34,8 \$ 23,6 \$ 34,8 \$ 23,6 \$ 34,8<		6,681	\$	%09	72%	16%	8	155	45%	32.5	%92	25%	48%	%0	1%
\$ 2,649 \$ 107 75% 12% 847,102 5,079 <th< td=""><td></td><td>2,674</td><td>₩</td><td>71%</td><td>11%</td><td>18%</td><td>↔</td><td>457</td><td>16%</td><td>40.3</td><td>29%</td><td>%8</td><td>26%</td><td>%59</td><td>2%</td></th<>		2,674	₩	71%	11%	18%	↔	457	16%	40.3	29%	%8	26%	%59	2%
\$ 4,250 \$ 2,850 \$ 2,9,868 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 2,548 8 3,075 8 2,242 8 3,075 8 3,075 8 3,075 8 3,075 8 3,075 8 3,075 8 3,075 8 3,075 8 3,075 9 3,075 <t< td=""><td></td><td>2,649</td><td>⇔</td><td>75%</td><td>12%</td><td>12%</td><td>\$</td><td>5,079</td><td>20%</td><td>24.7</td><td>95%</td><td>19%</td><td>%92</td><td>%0</td><td>%9</td></t<>		2,649	⇔	75%	12%	12%	\$	5,079	20%	24.7	95%	19%	%92	%0	%9
\$ 2,855 \$ 111 55% 22% 24% 4,099 65% 25.7 92% \$ 2,002 \$ 2,002 \$ 27 14% 33% \$ 26.793 277 6% 7.3 44% \$ 2,002 \$ 2,002 \$ 2428 \$ 27 1,077 21% 7.3 44% \$ 3,075 \$ 2428 \$ 2424 1,002 19% 12% 1077 21% 7.3 44% \$ 1,650 \$ 1650 \$ 168 13% \$ 25,40 1,002 19% 10.8 53% 10.8 53% 10.7 21% 6.857 34% 12.7 62% \$ 2,048 \$ 168 13% 22% 12% \$ 33,702 248 10.7 43% 10.8 53% 10.8 25% 41% 23% 44% 23.8 25% 41% 23.6 44% 23.6 44% 23.6 44% 23.6 44% 23.6 44% 23.6 44% 23.6 44% 23.6		4,259	&	93%	16%	21%	\$	2,548	80%	52.1	82%	17%	75%	3%	2%
\$ \$		2,855	s	22%	22%	24%		4,099	%59	25.7	95%	%6	71%		4%
\$ 2,428 \$ 123 57% 32% 12% 52,240 1,077 21% 62% \$ 1,650 \$ 265 61% 19% 21% \$ 25,240 1,002 19% 52% \$ 1,650 \$ 163 53% 19% 21% \$ 25,240 1,002 19% 53% \$ 1,650 \$ 1,650 \$ 163 34% 12.7 62% 43% \$ 2,048 \$ 3,075 \$ 31,031 2.02 34% 12.7 62% \$ 2,048 \$ 2,195 \$ 113 65% 24% 21% 30.0102 248 21% 30.102 248 21% 41% 42% 43% 41% 43% 41% 43% 41% 43% 41% 43% 41% 43% 41% 43% 41% 43% 41% 43% 41% 43% 43% 41% 43% 41% 43% 43% 43% 43% 43% 43% 43% 43% 43% 43%		2,002	↔	23%	14%	33%	₩	277	%9	7.3	44%	%6	86%		2%
\$ 3,075 \$ 285 61% 19% 21% \$ 25,240 1,002 19% 10.8 53% \$ 1,650 \$ 165 \$ 165 \$ 165 \$ 165 \$ 165 \$ 165 \$ 165 \$ 165 \$ 165 \$ 10.1 43% 53% 10.1 43% 53% 10.1 43% 10.1 43% 53% 10.1 43% 10.1 43% 53% 10.1 43% 53% 10.1 43% 53% 10.1 43% 53% 10.1 43% 53% 10.1 43% 53% 44% 44% 44		2,428	↔	21%	32%	12%		1,077	21%	19.7	25%	32%	%29		1%
\$ 1,650 \$ 163 53% 19% 28% \$ 35,754 1,939 36% 10.1 43% \$ 3,157 \$ 250 48% 13% 28% \$ 35,754 1,939 36% 10.1 43% \$ 2,048 \$ 6,857 34% 12.7 62% 24% 21% \$ 31,031 207 34% 12.7 62% \$ 2,048 \$ 62 54% 24% 21% \$ 31,031 207 34% 12.7 62% \$ 1,885 \$ 62 54% 23% 12% 638 37% 194 56% \$ 1,820 \$ 1420 \$ 38 \$ 27,82 3,226 3,22 30.9 62% \$ 1,420 \$ 80 67% 16% 16% 16% 33,20 30% 10.1 43% \$ 1,420 \$ 80 47% 35% 4,827 56% 41% 57% \$ 2,619 \$ 100 67% 13% 32,48 33,40 4,827 56% </td <td></td> <td>3,075</td> <td>↔</td> <td>61%</td> <td>461</td> <td>21%</td> <td></td> <td>1,002</td> <td>19%</td> <td>10.8</td> <td>23%</td> <td>13%</td> <td>85%</td> <td>%0</td> <td>2%</td>		3,075	↔	61%	461	21%		1,002	19%	10.8	23%	13%	85%	%0	2%
\$ 3,157 \$ 250 48% 13% 38% 6,857 34% 12.7 62% \$ 2,048 \$ 2,048 \$ 3 \$ 31,031 \$ 207 34% 12.7 62% \$ 2,048 \$ 2,048 \$ 3 \$ 65% 24% 21% \$ 31,031 207 34% 23.5 41% \$ 1,885 \$ 65 54% 24% 21% \$ 30,102 248 21% 30.5 44% \$ 2,195 \$ 113 65% 23% 12% 638 37% 19.4 56% \$ 1,822 \$ 124 67% 16% 16% 52,68 3,258 3,258 3,259		1,650	S	23%	19%	28%	8	1,939	36%	10.1	43%	19%	74%		%2
\$ 2,048 \$ 8 61% 18% 21% \$ 31,031 207 34% 23.5 41% \$ 1,885 \$ 65 54% 24% 21% \$ 30,102 248 21% 30.5 49% \$ 1,885 \$ 65 54% 24% 21% \$ 30,102 248 21% 30.5 49% \$ 2,195 \$ 113 65% 23% 12% 638 17% 19% 57,843 1,596 14% 196 53% \$ 1,822 \$ 104 67% 16% 16% 53,258 3,320 30% 30.9 62% \$ 2,192 \$ 1420 \$ 124 67% 16% 16% 32,582 3,320 30% 30.9 62% \$ 2,619 \$ 1420 \$ 47% 16% \$ 48,01 48,05 48,06 49% \$ 2,102 \$ 102 \$ 48% \$ 14,502 \$ 48,02 \$ 10,04 \$ 10,02 \$ 10,04 \$ 10,04 \$ 10,04 \$ 10,04 \$ 10,04		3,157	↔	48%	13%	38%		6,857	34%	12.7	62%	30%	%99		4%
\$ 1,885 \$ 65 54% 24% 21% \$ 30,102 248 21% 30.5 49% \$ 2,195 \$ 113 65% 23% 12% 638 37% 19.4 56% \$ 1,882 \$ 1182 \$ 96 64% 17% 19% \$ 27,843 1,596 14% 19.6 53% \$ 1,882 \$ 104 67% 16% 16% 53,258 3,320 30% 30.9 62% \$ 1,822 \$ 1420 \$ 124 67% 16% 16% 53,258 3,320 30% 30.9 62% \$ 2,109 \$ 1420 \$ 124 67% 16% 16% 53,258 3,320 30% 30.9 62% \$ 2,109 \$ 100 \$ 17 67% 16% 53,250 4,805 4,805 \$ 3,025 \$ 10 \$ 10 \$ 27% \$ 14,502 \$ 14,502 \$ 14,60 \$ 10 \$ 10 \$ 2,359 \$ 1,018 \$ 1,018 \$ 1,202 <t< td=""><td></td><td>2,048</td><td>↔</td><td>61%</td><td>18%</td><td>21%</td><td>8</td><td>207</td><td>34%</td><td>23.5</td><td>41%</td><td>19%</td><td>72%</td><td></td><td>3%</td></t<>		2,048	↔	61%	18%	21%	8	207	34%	23.5	41%	19%	72%		3%
\$ 2,195 \$ 113 65% 23% 12% 638 37% 19.4 56% \$ 1,882 \$ 96 64% 17% 19% \$ 27,843 1,596 14% 19.6 53% \$ 1,882 \$ 96 64% 17% 19% \$ 27,843 1,596 14% 19.6 53% \$ 1,822 \$ 124 67% 16% 16% \$ 32,682 3,320 30% 30.9 62% \$ 1,420 \$ 124 68% 16% 16% 5 38,015 4,505 41% 21.1 62% \$ 2,162 \$ 102 67% 16% 24,89 4,827 56% 19.4 63% \$ 2,162 \$ 107 67% 11% 19% 51,770 1,928 19% 11.1 48% \$ 2,359 \$ 108 \$ 24,500 5,044 50% 28 10.1 48% \$ 2,359 \$ 108 \$ 1,773 \$ 1,928 \$ 1,928 1,93 2,94		1,885	⇔	54%	24%	21%	8	248	21%	30.5	49%	79%	71%		%0
\$ 1,882 \$ 96 64% 17% 19% \$ 27,843 1,596 14% 19.6 53% \$ 3,822 \$ 124 67% 16% 16% \$ 32,582 3,320 30% 30.9 62% \$ 1,420 \$ 80 47% 33% 16% 16% 4,505 41% 17.6 49% \$ 2,619 \$ 112 68% 16% 16% 8,38,015 4,505 41% 21.1 62% \$ 2,162 \$ 107 67% 13% 24,89 4,827 56% 19.4 57% \$ 2,162 \$ 107 67% 11% 19% 51,770 1,928 19% 11.1 48% \$ 2,359 \$ 108 \$ 1,773 13% 24,502 6,894 45% 19.7 62% \$ 2,359 \$ 1,018 \$ 37,455 1,900 46% 32.0 94% \$ 1,272 \$ 1,28 37,455 1,900 46% 32.0 96% \$ 1,273		2,195	s	65%	23%	12%		638	37%	19.4	26%	%6	91%		%0
\$ 3,822 \$ 124 67% 16% \$ 32,582 3,320 30% 30.9 62% \$ 1,420 \$ 80 47% 33% 19% 635 19% 17.6 49% \$ 2,619 \$ 1,420 \$ 124 68% 16% 18% 17.6 49% 40% \$ 2,162 \$ 112 68% 16% 8,480 4,827 56% 19.4 57% \$ 2,162 \$ 107 67% 8% 24,89 4,827 56% 19.4 57% \$ 3,025 \$ 107 67% 11% 19% \$ 1,770 1,928 19% 11.1 48% \$ 2,359 \$ 108 \$ 1,770 1,928 1,97 62% 28% \$ 1,018 \$ 5 1,01 1,3% 23% \$ 1,450 46% 32.0 94% \$ 1,272 \$ 1,28 3,41,502 6,894 45% 14.8 69% \$ 1,272 \$ 1,58 3,455 1,900 46%		1,882	&	64%	17%	19%	\$	1,596	14%	19.6	23%	17%	44%	33%	%9
\$ 1,420 \$ 80 47% 35% 19% 635 19% 17.6 49% \$ 2,619 \$ 124 68% 16% 18% 18% 17.6 49% \$ 2,162 \$ 112 68% 16% 16% 838,015 4,505 41% 21.1 62% \$ 2,162 \$ 107 67% 8% 24,887,500 5,044 50% 28.4 63% \$ 3,025 \$ 120 72% 11% 19% \$ 51,770 1,928 19% 11.1 48% \$ 2,359 \$ 120 72% 15% 13% \$ 21,770 1,928 19% 11.1 48% \$ 1,018 \$ 69 63% 13% 23% \$ 1,831 638 45% 14.8 69% \$ 1,272 \$ 1,68 \$ 37,455 1,900 46% 32.0 94% \$ 1,273 \$ 1,821 \$ 36,16 13% \$ 10.9 59% \$ 1,821 \$ 12 \$ 39,616 13		3,822	٠ ج	%29	16%	16%	()	3,320	30%	30.9	%Z9	14%	34%	48%	4%
\$ 2,619 \$ 124 68% 16% \$ 38,015 4,505 41% 21.1 62% \$ 2,162 \$ 112 52% 13% 35% \$ 4,280 4,827 56% 194 57% \$ 2,162 \$ 107 67% 8% 24% \$ 37,500 5,044 50% 28.4 63% \$ 2,359 \$ 120 72% 11% 19% \$ 51,770 1,928 19% 11.1 48% \$ 2,359 \$ 1,018 \$ 69 63% 13% 23% 81,317 638 45% 19.7 62% \$ 2,772 \$ 87 77% 15% 8 37,455 1,900 46% 32.0 94% \$ 1,273 \$ 1,821 \$ 36,106 67% 22% 13% 36,106 67% 10.9 59% \$ 1,073 \$ 12 \$ 31,905 2.014 16% 8.7 44%		1,420		47%	32%	19%		635	19%	17.6	49%	2%	25%	32%	%8
\$ 2,162 \$ 112 52% 13% 35% \$ 4,2809 4,827 56% 19.4 57% \$ 3,025 \$ 107 67% 8% 24% \$ 37,500 5,044 50% 28.4 63% \$ 1,025 \$ 107 67% 11% 19% \$ 51,770 1,928 19.4 57% 63% \$ 2,359 \$ 120 72% 15% 13% \$ 41,502 6,894 45% 19.7 62% \$ 1,018 \$ 69 63% 13% 23% \$ 18,317 638 14.8 69% \$ 1,272 \$ 77 15% 8% \$ 37,455 1,900 46% 32.0 94% \$ 1,273 \$ 16 65% 22% 13% \$ 36,106 647 9.6 49% \$ 1,073 \$ 12 \$ 31,905 2.014 16% 8.7 44%		2,619	€	%89	16%	16%	8	4,505	41%	21.1	%29	41%	26%	%0	2%
\$ 3,025 \$ 107 67% 8% 24% \$ 37,500 5,044 50% 28.4 63% \$ 2,359 \$ 70% 11% 19% \$ 51,770 1,928 19,7 62% \$ 2,359 \$ 1,018 \$ 69 63% 13% \$ 41,502 6,894 45% 19,7 62% \$ 2,772 \$ 8 \$ 1,018 \$ 69 \$ 32,0 \$ 1,900 46% 32.0 94% \$ 1,263 \$ 1,263 \$ 1,67 \$ 36,106 647 36,0 49% \$ 1,273 \$ 12% \$ 39,106 67 \$ 27% \$ 1,27 \$ 10,9 \$ 10,9 \$ 1,073 \$ 12,4 \$ 1,07 \$ 10,0 \$ 10,0 \$ 10,0 \$ 10,0 \$ 1,073 \$ 12,4 \$ 1,07 \$ 10,0 \$ 10,0 \$ 10,0 \$ 10,0 \$ 10,0		2,162	€	52%	13%	32%		4,827	26%	19.4	21%	36%	%09	%0	4%
\$ 867 \$ 78 70% 11% 19% \$ 51,770 1,928 19% 11.1 48% \$ 2,359 \$ 120 72% 15% 13% \$ 41,502 6,894 45% 19.7 62% \$ 1,018 \$ 69 63% 13% 23% \$ 18,317 638 18% 14.8 69% \$ 2,772 \$ 87 77% 15% 8% \$ 37,455 1,900 46% 32.0 94% \$ 1,263 \$ 116 65% 22% 13% \$ 36,106 647 38% 10.9 59% \$ 1,821 \$ 19 67% 27% 6% \$ 39,615 135 21% 9.6 49% \$ 1,073 \$ 12 \$ 31,905 2,014 16% 8.7 44%		3,025	8	%29	%8	24%	\$	5,044	20%	28.4	%89	13%	83%	%0	4%
\$ 2,359 \$ 120 72% 15% 13% \$ 41,502 6,894 45% 19.7 62% \$ 1,018 \$ 69 63% 13% 23% \$ 18,317 638 18% 14.8 69% \$ 2,772 \$ 87 77% 15% 8% \$ 37,455 1,900 46% 32.0 94% \$ 1,263 \$ 116 65% 22% 13% \$ 36,106 647 38% 10.9 59% \$ 1,821 \$ 12 \$ 31,905 2.014 16% 8.7 44%		867	\$	%02	11%	19%	8	1,928	19%	1.7	48%	29%	64%	%0	%9
\$ 1,018 \$ 69 63% 13% 23% \$ 18,317 638 18% 14.8 69% \$ 2,772 \$ 87 77% 15% 8% \$ 37,455 1,900 46% 32.0 94% \$ 1,263 \$ 116 65% 22% 13% \$ 36,106 647 38% 10.9 59% \$ 1,821 \$ 19 67% 27% 6% \$ 39,615 135 21% 96 49% \$ 1,073 \$ 124 67% 21% 12% \$ 31,905 2.014 16% 8.7 44%		2,359	\$	72%	15%	13%		6,894	45%	19.7	62%	18%	27%	20%	2%
\$ 2,772 \$ 87 77% 15% 8% \$ 37,455 1,900 46% 32.0 94% \$ 1,263 \$ 11,263		1,018	₩	%89	13%	23%		638	18%	14.8	%69	18%	82%	%0	%0
\$ 1,263 \$ 116 65% 22% 13% \$ 36,106 647 38% 10.9 59% 59% \$ 1,821 \$ 190 67% 27% 6% \$ 39,615 135 21% 9.6 49% \$ 5 1,073 \$ 124 67% 21% 12% \$ 31,905 2.014 16% 8.7 44%		2,772	€	%22	15%	8%	8	1,900	46%	32.0	94%	19%	45%	34%	3%
\$ 1,821 \$ 190 67% 27% 6% \$39,615 135 21% 9.6 49% 5 10.073 \$ 1.073 \$ 124 67% 21% 21% \$31,905 2.014 16% 8.7 44%		1,263	s	%59	22%	13%	8	647	38%	10.9	%69	%0	%26	%0	3%
\$ 1.073 \$ 124 67% 21% 12% \$ 31,905 2.014 16% 8.7 44%		1,821	\$	%29	27%	%9	8	135	21%	9.6	49%	4%	94%	%0	3%
		1,073	\$	%29	21%	12%	8	2,014	16%	8.7	44%	%6	75%	%8	%6